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BREATHS OF STATESMANSHIP *

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Like so many other Americans, I seldom find the time to read and re-read the provocative ideas and the humorous words of our poets.

But lately I have enjoyed reading some light poetry during the hours I spend on air liners as I travel about the country. Earlier this year I ran across a short stanza that seems to fit my topic tonight, "Breaths of Statesmanship." It took some doing to relocate the verse, but I finally found these lines by Walt Mason in a poem called "The Statesmen." One stanza goes like this:

> "The statesman throws his shoulders back, and straightens out his tie,
> And says, 'My friends, unless it rains, the weather will be dry.'
> And when this thought into our brains has percolated through,
> We common people nod our heads and loudly cry,
> 'How true!'"

Tonight I am not here in the role of a statesman, but I would like to talk briefly on the subject of statesmanship. And I do not intend to say: "My friends, unless we have wisdom, we will have folly."

My aim is to discuss statesmanship at all levels of society, and not the statesmanship of the President, the diplomatic corps, senators, governors, or other top political figures.

It is my understanding that a statesman is a person who demonstrates particular wisdom in *grasping, treating* or *directing* matters of *public interest.* This person can be a butcher, baker, candlestick maker, doctor, lawyer, or merchant.

Furthermore, the matters of public interest need not be foreign relations or international problems. They may be about any subject—health, schools, roads, neighborhood relations or freedoms—as long as they are a public concern.

Unfortunately, our modern-day society has the idea that certain citizens have no business in public affairs. The notable examples are *teachers, ministers* and *doctors.* Although members of the teaching, religious, and medical professions are citizens like everyone else, many Americans believe the teachers place is in the classroom . . . the minister's in the pulpit . . . and the physician's in his office and hospital.

These persons think the professional men should stick strictly to their educational, religious, or medical knitting. In their view, these professional men dirty their hands and their professional status whenever they engage in political affairs or speak their minds on controversial public issues.

Some persons even go so far as to say professional men should keep their dis-

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tance from non-political community activities.

However, if my memory of history serves me correctly, I recall that *five physicians,* a *minister* and *a college president* signed the declaration of Independence. These men demonstrated in no uncertain fashion that doctors, teachers, and ministers are *citizens first.*

These five men were not simply expressing a mild, dignified opinion on a public issue. They signed the most controversial written document in the history of mankind. They were full-blooded revolutionaries who chose to live dangerously. They were among the leaders of a major political revolt against duly constituted authority.

If they and their co-leaders had lost their cause, they would have faced much more public criticism for being on the wrong side of an issue . . . much more than ridicule for being active political visionaries . . . much more than the loss of their medical practices, pulpit or educational position. If their cause had failed, they would have faced the gallows or the firing squad. Nevertheless, they took their chance for leadership without hesitation.

If members of these three professions could do so much in that critical period of our history, why should these men and women now be considered above public affairs or outside the realm of politics? Or why should these men and women themselves think public matters are beneath them?

Our nation's need for the interest and participation of all citizens in government is as great today as ever before. Why then should certain professional men be prevented from exercising all the rights and privileges of citizenship? Or why should they ignore their responsibilities and obligations?

No academic degree places an individual above political life. No station in life puts an individual above community tasks.

Our great need at every level of political activity and in every community is common sense and clear thinking by all men and women. From them will come the vital statesmanship that enriches democracy, freedom and good government.

Hands and hearts are not enough. Minds—yours, mine and everyone's—must be put to work for our society's future. A little mental exercise now and then is not enough. We must apply ourselves constantly to the problems confronting us.

In my travels around the country in the last two years I have seen hundreds of doctors assume greater responsibility in political and community life. I have read many of the articles they have written, too. And believe me, it has been a thrill to see these men and women—young doctors and long-time practitioners—getting into the swim of community activity.

My observations of citizens in action has not been limited to doctors. I have seen and heard men from all walks of life — ministers, teachers, businessmen, farmers, newspapermen and others—contributing to our nation's political life and thought, and lending their mental talents to the solution of various problems.

Within my own profession I have seen the number of medical statesmen increase considerably in recent years. I classify them as statesmen because they are men who are striving for what is best for all Americans and for our free society.

My personal hope is that every doctor will help to continue this good trend, and he will do even more to promote our way of life and to provide imagination, guidance and devotion in all our mutual problems, whether they involve health, good government or basic American philosophy.

I could cite many recent instances of statesmanship by medical men and women. Let me tell you quickly about just one—the story of the doctors in Decatur, a central Illinois city of 75,000.

A few years ago a Decatur survey revealed that 60 per cent of the residents felt physicians were not interested in making their community a better place to live. Now several years later the situation is quite different. Public opinion of Decatur doctors has taken a complete about-face.

Today the doctors are community heroes. Why? Because Decatur doctors became medical statesmen by taking an interest in the treatment and direction of community problems.

Largely because of the county medical society's 11th-hour support of a construction bond issue, six new schools were approved by the voters. Doctors, their wives and PTA teams saved the day by distributing 5,000 leaflets financed by the medical society. The leaflets called school expansion necessary to good health, less delinquency, and better future for local youngsters.

Later, the Decatur doctors rallied public support for a sewer bond issue and for a dam to raise the level of Lake Decatur.

Today the Decatur citizens are saying: "One of the best things that has happened to this community is the revival of the medical society's interest in public affairs."

Here was medical statesmanship in action. Here was a breath of fresh interest, opinion and action helping to direct a growing city to better living.

Words too can mold public opinion. And medical men or others with the ability to write should make the most of it.

While I was traveling from San Francisco to Arizona just a few weeks ago, I ran across an article called "We Forget What Makes America Great." It was written by a physician, Dr. Richard L. Fruin of the U. S. Armed Forces, for Freeman magazine. In his conclusion the doctor says:

"It is only as individuals that we can combat this tendency to the alleged **all wise, all powerful, everywhere present** state where there is BIG GOVERNMENT and little people. As individuals we can study our heritage, understand the proper function of government, and do that which lies within our capacity to bring about a rebirth of freedom in America.

"We owe at least this to our children—that they be left no less free than we were."

A breath of statesmanship? Yes, indeed. Dr. Fruin's words demonstrate that we don't always have to quote past American statesmen. Our own words can be forceful and our own ideas provocative.

I think we should remember that there is a good deal of potential statesmanship in all of us. We need only to seek the time and place to use it and then apply it.

This is exactly what one man did in testifying against a Social Security amendment to lower the eligibility age to 50 for totally and permanently disabled persons. His testimony is one of the finest breaths of statemanship I have known.

Henry Viscardi, president of Abilities, Inc., of New York City, appeared before the U. S. Senate Committee on Finance and gave a magnificent statement. Here is just a brief part of his testimony:

"Our disabled people are crying for the right to be the same. They both want to be, and should be, considered as the ordinary people they really are, each according to his individual capacities and abilities, and each with his compensating qualities to offset the extremes of physical make-up . . .

"If we could only, in the communities of America and in commerce and in industry, shake the ancient superstitions which make us divide our world into **able** and **disabled** persons, and the prevailing belief that the man who has lost his limbs is different from other people. From a medical point of view, sure, he is different; but in society and in industry it is his abilities that count and not his disabilities.

"While I have no recommendations that I would presume to make to this great committee, I come to indicate my apprehension that we may stigmatize the disabled by this legislation, we may condone the ignorance, the misunderstanding which exists; and we might then deprive millions of our citizens of the right to know a productive life, and have them resigned to subsidy, which is not their heritage as Americans."

This breath of statesmanship came from a physically disabled person, a man born without legs. More important, however, it came from an able American mind; from a citizen who is vitally concerned with the well being of all disabled persons and his country.

All of us in medicine, law, religion, education, business, or any other field must remember that we too are citizens first. As individuals we must give of our time and talents to this promotion of our democratic system and to the betterment of the public good.

We also must remember that our pro-

fessions or our trades are not isolated from other fields of endeavor. We in medicine recognize that our profession is interrelated with the business structure, allied professions, social and economic trends, public opinion, government and politics.

Because of this interrelation we must have medical statesmen who can understand and cope with medical issues affecting those outside our profession as well as affecting those within our profession. As the quantity and scope of issues increase, we need more medical statesmen from within our own ranks. Equally important, we need statesmen from other professions and trades to help up with the new challenges and new socio-economic situations confronting us.

I am happy to say that we are beginning to get good counsel and strong aid from statesmen in other professions and trades. I believe that only strong leadership and sound thinking by medical men and our allies can stem certain tides or advance certain ideals.

The need for statesmen within your professions and trades undoubtedly is as great as it is in medicine. Like medicine, you have the manpower and the brainpower to solve your own internal problems. Like medicine, you too can use statesmen from the outside to assist you in certain endeavors and on many issues.

So just as you can help us in medicine, we too can aid you.

Certainly all of us have been guilty of trying to carry the ball alone at times, ignoring the fact that there were other capable men and women from all walks of life who were ready to help us and who could have done much to resolve problems or to put across our programs.

For example, medical societies all around the nation are the first to admit that this year's campaign to inoculate millions of Americans up to the age of 40 with the Salk antipolio vaccine would never have been more than an idea without the cooperation of scores of lay and allied medical organizations.

Men and women from industrial groups, labor unions, schools, PTAs, service clubs, and various organizations worked with medicine. Newspapers and broadcasting stations kept interest alive by repeatedly emphasizing the need for vaccinations, announcing sites for inoculations, and reporting progress of the programs.

From this experience with polio inoculation programs thousand of physicians have learned again that the greatest rewards of civic accomplishment come in working with other groups. This is a most important concept, and all groups should remember to seek cooperation from others.

Just as we work together on programs of action, we also must cooperate on philosophical problems, such as the promotion of our American way of life, maintenance of our liberties, improvement of our free enterprise system, and the betterment of our democratic form of government.

For example, where freedom cries out to be defended, let us not only oppose the curtailment of our own professional and personal freedoms, but let us also come to the aid of others whose freedoms are being invaded. Encroachment on freedom must be resisted in all areas of human endeavor, and none of us must dare think that a little loss of freedom by the other fellow will not imperil us. Whenever and wherever freedom suffers defeat, each of us—no matter what our line of work—is affected.

As you know, some Americans have said that a little government control over the medical profession would be a good thing.

To those persons I simply say that a little control is too much control. A little leads to more control. More control of one profession leads to control over another segment of American life, and so on until all American life is dominated by the government.

I think we all should remember Dr. Fruin's breath of freedom: "We owe at least this to our children—that they be left no less free than we were." In addition, I believe we should remember this

companion breath of freedom, too.

We owe at least this to all our professions—that they be left no less free than they were when we found them.

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CONSTIPATION IN THE ELDERLY PATIENT *

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Constipation is usually considered to be the infrequent or difficult passage of feces. The frequency of passage is not so important as the difficulty experienced in passing the stool. Most people have a formed but not hard bowel movement every day or two without the help of cathartics. Some persons have a bowel movement every three or four days with no ill effect. The stool is soft, not large in calibre, and causes no distress locally or systemically. There seems to be no good reason to consider these persons to be constipated. Conversely, others have a daily bowel movement which is large or hard, and causes soreness or bleeding. These persons are constipated in spite of a daily bowel movement. It might be well to state that symptoms previously attributed to autointoxication are not caused by absorption of toxic materials from the colon of a constipated person. They are probably due to an overdistended bowel which causes nervous tension and gives about the same symptoms as nervous tension from other causes, such as eye strain.

GASTROCOLIC AND DEFECATION REFLEXES

The cause of constipation is almost always in the large intestine. The contents of the small intestine are liquid, and are moved along the gut with very little difficulty. In the large intestine, absorption continues, but there is no replacement of the liquid and dissolved food products with intestinal secretions as in the small intestine. The colon secretes only mucus so that the material in the large bowel becomes more hard and dry up to the time it is expelled. The gastrocolic reflex is activated by food entering the stomach. Entrance of this food causes mass peristalsis in the transverse and descending portions of the colon. Material from the right side of the colon is moved toward the sigmoid. It usually takes three of these peristaltic actions to fill the sigmoid and cause some of the feces to enter the rectum. Normally the rectum is empty, and the desire to defecate is created by fecal material entering it from the sigmoid. If the individual responds by having a bowel movement, the rectum and sigmoid are emptied, and no more material enters the rectum until three more meals are eaten. If this urge to defecate is repressed, reverse peristalsis will return the fecal material to the sigmoid. Present day living requires that the bowels move only at certain times and places, so that it is often inconvenient to stop what we are doing to go to the toilet and empty the bowel. Children at school and at play will not take time to go to the toilet, so early in life the urge to defecate is suppressed time after time. Finally, the bowel no longer contracts and returns the feces to the sigmoid, but allows it to remain in the rectum. The reflex tires so that the individual carries material in the rectum without knowing that it is there and without having the feeling that an evacuation is necessary. Such a person will probably take a laxative after a day or two in order to force more material into the rectum and stimulate the reflex. This is the beginning of the laxative habit which often continues for life.

Whether more older persons are constipated or not is controversial. Most people, including physicians, believe this to be true, but few of the published statistics substantiate this belief. There is a paucity of scientific observations and figures on this subject, but those available seem to indicate that the proportion of elderly persons who are constipated is about the

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same as it is in middle life. There is good reason to believe that this is true, but that the degree of constipation is greater. A person who has taken cathartics most of his life has surely built up some resistance to these drugs and is therefore more constipated.

COMMON CAUSES OF CONSTIPATION

The following factors may be related to constipation in older people:

1. Loss of defecation reflex
2. Cathartic habit
3. More bowel consciousness
4. Sedentary life
   a. Decreased physical activity
      Loss of tone
   b. Decreased appetite
      Low water intake
      Low food intake
         Decreased vitamins and minerals
         Decreased bulk
5. More physical disorders
   a. Dental condition poorer
   b. More anorectal disorders and rectoceles
   c. More bowel disorders such as diverticula and tumors
6. More medication taken
   a. Some drugs used for heart disease and hypertension slow peristalsis

PROCEDURES IN EXAMINATION

A detailed history is important. The general history will give information regarding the amount of activity, eating, water drinking, cathartics used, other medications and the conditions for which they are taken. Bowel habits should be investigated. It is important to know whether the bowels are moving regularly, and if there has been any recent change in their character of frequency. If cathartics are used, the type, amount, and interval should be recorded. The patient should be questioned as to the character of the stool. Is it hard, soft, or liquid, and is there any associated discharge such as blood, pus, or mucus? Inquiry should be made as to whether there is any prolapse, stenosis, swelling, or itching. Pain is an important symptom, and should be investigated as to location, character, duration, and whether it is associated with eating or defecation.

Every general physical examination should include a proctoscopy. This is not a difficult examination to do in the office, and it requires very little special equipment. The information received from such an examination is rewarding out of all proportion to the time and effort expended. Anorectal conditions such as hemorrhoids, fissures, papillae, and pruritus are discovered, as well as rectoceles and stenosis. The tone of the bowel wall can be determined, and if the patient is examined without a preliminary enema, it can be noted whether fecal material is present in the rectum without a desire to defecate. If such a condition is found, it indicates that the defecation reflex has been lost or reduced. Finding a sigmoid colon that seems fixed and does not move easily suggests diverticulitis. Seventy-five percent of bowel polyps, which occur with increasing frequency after the third decade, may be seen with a sigmoidoscope. Polyps may be the cause of a change in bowel habit, but, more important, they are precancerous and should be removed.

If sufficient evidence concerning the cause of constipation or a change in bowel habit is not found in the history on examination or on proctosigmoidoscopy, a barium enema is indicated.

TREATMENT

The treatment of constipation in elderly people is not simple. Certain basic principles, however, are obvious. The general condition of the patient should be improved if necessary. This will increase bowel activity, and may even help restore tone to a flabby bowel wall. A diet containing sufficient protein, vitamins, and minerals should be insisted upon. Bulk is often lacking in the diet of older people, so the importance of leafy vegetables, stewed fruits, and bran should be emphasized. Along with the increase in bulk, there must be an increase in fluid intake. Bran especially may cause an impaction if there is insufficient fluid intake. Poorly fitting dentures and loss of teeth make chewing food more difficult, and often

lead to poor appetites and unbalanced diets.

It is questionable whether the physical activities of older people should be appreciably increased, but some do get help for their constipation by gently massaging the abdomen.

Anorectal disorders should be corrected when the general physical condition permits. Painful anal lesions such as ulcers, fissures, pruritus, and cryptitis cause patients to hold back bowel movements because of the associated discomfort, and definitely add to constipation. Hemorrhoids and papillae prolapse into the anal canal and leave less room for the passage of feces. Anal stenosis also inhibits the passage of feces. A rectocele allows the fecal matter to lodge in the recto-vaginal wall rather than to pass through the anal canal, and so adds to constipation. Women with rectoceles usually find that pressure against the posterior vaginal wall while the bowels are moving helps to empty the rectum.

In younger persons, the defecation reflex will often return if the rectum is kept empty—except just before bowel movements—for several months. Older people are less apt to respond to treatment for this condition, but it is often worth trying. The patient is asked to establish a habit time by going to the toilet just after breakfast each morning. It is better if the bowels move spontaneously, but even if they do, the evacuation is not complete, and it is necessary to take an enema after the movement. Only plain water is used in the enema, and only the smallest amount that will give a sensation of fullness or a desire to defecate is used. Soap and glycerin are irritants, and should not be used. Running large quantities of water into the bowels stretches the wall which may already be overdistended because of the constipation. Whether the bowels move or not, the enema is taken in the same manner. The principle underlying this treatment is to keep fecal material out of the rectum and allow it to contract to its normal size. By removing the constant stimulus of fecal material in the rectum, the reflex is also given an opportunity to return. It is necessary to continue this treatment for several months to get results, but enemas taken as described often give satisfaction to those older people who are more bowel conscious. The procedure gives them something harmless to do; it relieves constipation, and, at times, restores the reflex.

Drugs taken by older people for heart disease, hypertension, stomach disorders, and anemias often cause peristalsis to be decreased, and must be taken into consideration in the treatment. A saline or an irritant cathartic is needed with most of these drugs to prevent constipation or impaction.

TYPES OF CATHARTICS AND THEIR ACTION

It may be well to consider some of the more common types of cathartics, and review their actions so that they may be used to the best possible advantage. Most cathartics may be placed in one of five classes:

1. Irritants
2. Salines
3. Bulks
4. Lubricants
5. Wetting agents

A sugar coated pill is the most pleasant and convenient form in which to take a cathartic, so most laxatives are taken in this form. Most, but not all pills contain irritant cathartics. The most common irritant cathartics are cascara, aloin, senna, and phenolphthalien. All of these drugs are absorbed, and, with the exception of phenolphthalien, act by stimulation of Auerbach's plexus. The difficulty is that it is hard to determine where stimulation stops and irritation begins. Lately, senna has been standardized, and there is much better control of its action and dosage. This is not true of the other drugs in this group. The body builds up a tolerance to these drugs which results in the necessity of increasing the dosage to a point where it is almost impossible to get the bowels to move. This is the stage of constipation in which many older patients are found,

and it is a most difficult condition to treat.

Saline cathartics act in a different manner, and may be considered bulks. Although there is some difference in the actions of the ions of the various saline cathartics, it may be said that the general action is that of drawing fluid into the intestinal tract by osmosis. The body tries to dilute concentrated salines that are placed in the intestinal tract, by increasing intestinal secretion. The increased amount of fluid softens fecal matter and increases the volume of the intestinal contents, thereby stimulating peristalsis. It must be remembered that taking saline cathartics can dehydrate a patient if the fluid loss from the cathartic is not replaced by increased fluid intake.

The bulk cathartics are karaya gum, psyllium, bassora gum, tragacanth, agar, bran, and the newer derivatives of cellulose. The action of all these drugs is local. They stimulate peristalsis by increasing the bulk in the intestinal lumen. Psyllium may be partially absorbed, but there is no indication that it is harmful. Many older patients need increased bulk in their intestines because they do not get enough in their diets. These drugs will supply the bulk, but it must again be remembered that more water has to be taken with them or impactions result.

Some persons will just not drink sufficient water; even when the necessity is explained to them. In order to keep the stools soft in these patients, it is necessary to use mineral oil, petrolatum, or one of their emulsions. These products furnish lubrication and increase the bulk somewhat by forming emulsions with the fecal material and softening it so that it can move easily in the bowel lumen and pass through the anal canal without causing trauma. Mineral oil and petrolatum are slightly absorbed by some people. It is also known that they remove some of the fat soluble vitamins from the intestine, but little harm is done if these products are taken only before retiring, after most of the food eaten that day has been absorbed. The dosage can usually be regulated so there is no leakage, but these drugs should not be used in patients with diverticula, which are common in older people. Mineral oil, when caught in a diverticulum or anal crypt, acts as a foreign body, and can lead to irritation and abcess formation.

Wetting agents act much like mineral oil in that they soften the feces and increase bulk by retaining water. As far as is known at present, they are not absorbed, do not irritate, and they have no effect on the intestinal contents other than to hold more liquid in the fecal mass. They do not cause irritation in diverticula and crypts, but work much better if the fluid intake is increased while they are being used. Dioctyl sodium sulfasuccinate is the most popular wetting agent used at present, but others are beginning to come out of the experimental stage.

Enemas and suppositories should be considered along with cathartics. Plain water or normal saline enemas do nothing but distend the rectum and initiate the defecation reflex. Unless more stimulation or irritation is needed, soap and glycerin should not be used in enemas. This is especially true if the enemas are to be repeated very often. Never use hydrogen peroxide in an enema. It is extremely irritating, and a 1/10th of 1 per cent solution of a wetting agent is much more effective in softening an impaction. Glycerin suppositories are also very irritating, and should be avoided.

A problem that is usually not understood by the patient is that many cathartics empty the entire colon, and that forty-eight hours or more are required for it to refill. The irritant and saline cathartics usually empty the colon from the cecum on. Normally, the next twenty-four hours are needed to get the first fecal material to the sigmoid again, and another twenty-four hours to fill the sigmoid to a point where it is ready to empty itself. Many people feel that another laxative is necessary if the bowels do not move for one day, and so take another dose before the

bowel is really ready for another movement. A cathartic taken every day or even every other day does not give the bowel a chance to act normally, and adds to the cathartic habit.

With the foregoing information in mind, it is usually not too difficult to give relief to most of the patients who are willing to cooperate. The most discouraging problem is that of the patient who has taken gradually increasing doses of all the irritant cathartics and a few of the others, with enemas thrown in for good measure. An explanation to the patient of the existing condition and what is trying to be accomplished is usually helpful, as relief will seldom come rapidly, and treatment will probably be prolonged. Most of these patients have also been taking something every day, and will insist on continuing to do so. A combination of several procedures and medications is usually necessary to give relief. All of these patients should try to establish a habit time by going to the toilet right after breakfast each morning. If the bowels do not move within a few minutes, a small plain water enema is taken. It is important that not more than one pint of lukewarm water be inserted at one time. This should be expelled and the enema repeated rather than using larger amounts which overstretch the bowel. Irritant cathartics cannot be withdrawn suddenly from this type of patient. It is usually better to change the drug and try to decrease it gradually by using another type of cathartic to supplement the irritant. Combinations of irritants with bulks or wetting agents have been used with success, as have the old-time combinations of irritants with mineral oil.

It would be foolish to expect to cure all the people of constipation who have taken cathartics for many years. The physician will have fulfilled his obligation if he is able to help work out a routine that will keep the patient contented without causing too much inconvenience, and without doing harm.

SUMMARY

Constipation is defined.

A brief review of the gastro-colic and defecation reflexes is presented.

The more common causes of constipation in elderly patients are enumerated and discussed.

A classification of cathartics and the pharmacology of each group is given.

Since there is no one easy convenient treatment for constipation in elderly patients, it is necessary for the physician to consider general and local condition of the patient, as well as the pharmacology of the various cathartics in establishing a satisfactory routine for these patients.

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RABIES IN LOUISIANA

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Rabies in animals has been a threat to the health and happiness of the people of Louisiana for many years. The threat of this dread disease can and should be removed.

EXTENT OF THE PROBLEM

Among the states Louisiana ranks high in the number of cases reported annually.

In 1956, only 2 states reported more cases than Louisiana.

The number of laboratory confirmed animal cases by species, in Louisiana, in the years 1946 to 1956, inclusive, is shown in Table 1. The tremendous increase which occurred in 1956 was caused by an outbreak of rabies in foxes which began in 1955 and extended through 1956. Although an epizootic occurred in foxes, the statistical increase is probably due in part to an organized effort to collect and study fox brains for rabies. This increase would not otherwise have been reflected statistically as many of these foxes would have died of rabies without coming to the attention of the Department of Health.

TABLE 1
LABORATORY CONFIRMED CASES OF RABIES BY SPECIES IN LOUISIANA 1946 - 1956.

Animal	1956	1955	1954	1953	1952	1951	1950	1949	1948	1947	1946
Dog	88	50	114	137	261	239	187	198	252	313	417
Cat	7	6	4	5	7	12	3	14	16	24	24
Cattle	21	7	6	6	4	2	3	6	0	10	30
Horse	4	0	0	0	0	0	0	0	0	1	0
Swine	1	0	0	0	0	0	0	1	0	0	0
Goat	1	0	0	0	0	0	0	1	0	0	1
Fox	290	75	26	2	4	1	0	0	3	8	19
Mouse	0	0	0	0	0	0	0	1	0	0	0
Racoon	0	0	0	0	0	0	0	0	1	0	0
Squirrel	0	0	0	0	0	0	0	0	0	0	1
Rat	1	0	0	0	0	0	0	0	0	0	0
Bat		1*									
TOTALS	413	138*	150	150	276	254	193	221	272	356	492

* Rabies virus isolated from 1/19 pools of brain tissue from 94 Florida free-tail bats.[4] Not included in 1955 total.

At the same time that the state was having an outbreak of fox rabies, there was a definite reduction in the number of cases of rabies in dogs. This occurred even though the state had a vastly improved reporting system and an effort was made to examine the brain of every suspect rabid dog.

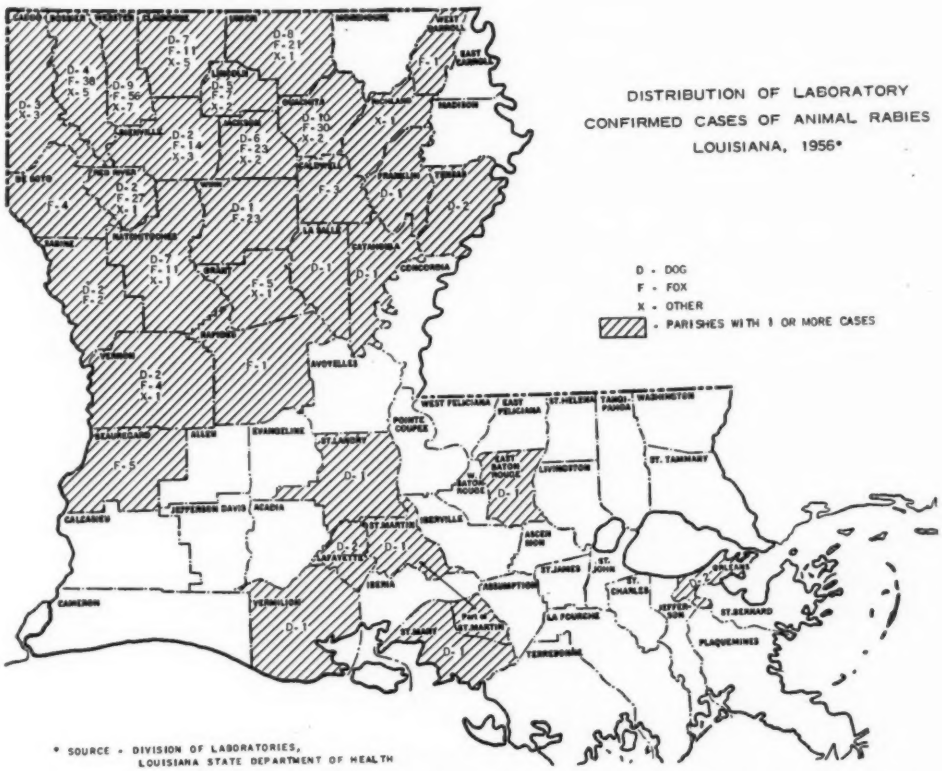
Dogs and foxes were the main reservoirs of rabies in the period 1946 through 1956. However, 10 other species of animals were proven to have rabies during this same eleven year period. (Table 1) Geographically, dog rabies has been observed in all sections of the state. Fox rabies, however, has been largely confined to the northwestern part of the state. (Figure 1) In 1956, 290 laboratory confirmed cases of rabies in foxes were reported from 19 parishes extending from the northwest corner of the state southward to Beauregard Parish and eastward as far as West Carroll Parish.

RABIES IN DOGS

Rabies in dogs, because of the close proximity of dogs to man, poses the greatest rabies threat to man.

The incubation period in dogs ranges from ten days to several months, but is usually about twenty-one to sixty days.[1] The variation in the length of the incubation period is probably related directly to the amount of virus introduced into the susceptible host.

Rabies in dogs is usually classified as furious or dumb type depending upon the symptoms that are shown by the animal. In the early stages of the furious type the dog usually appears normal except that it may be more friendly than usual. If the animal is normally affectionate and well behaved it tends to become shy and hide away. As the disease progresses the dog tends to become irritable, restless, and easily excitable and in a period of one to three days hostility and aggressiveness develop. It is during this stage that the dog begins its wandering. Sometimes it will wander as far as twenty miles. The animal also begins to snap at everything in its path and it will attack any person or animal it encounters. It also exhibits bizarre behavior, eating such things as


DISTRIBUTION OF LABORATORY
CONFIRMED CASES OF ANIMAL RABIES
LOUISIANA, 1956*
D - DOG
F - FOX
X - OTHER
- PARISHES WITH 1 OR MORE CASES
* SOURCE - DIVISION OF LABORATORIES,
LOUISIANA STATE DEPARTMENT OF HEALTH

sticks, straw, and its own feces. The eyes have a dry, glazed appearance and are held wide open. A peculiar howl-like bark develops. Toward the end of the wandering period a wobbly or staggering gait develops. This is a manifestation of the final or paralytic stage. The paralysis becomes progressively worse until the dog can no longer stand and death ensues. The clinical course of furious rabies is usually from four to seven days, but the dog may live as long as eleven days after onset.

In the dumb form of the disease the dog usually goes off to itself. It tends to hide, wants to be alone, and appears sleepy and melancholy. Paralysis of the jaw, throat, voice, and leg muscles soon occurs and becomes progressively worse until death ensues.

Animals with dumb rabies are not irritable and they seldom snap or bite. Most human exposures occur because someone thinks the dog has a bone or other object lodged in its throat and attempts to remove it, or someone attempts to give the animal oral medication.

Dogs with dumb rabies seldom live longer than three days after developing clinical disease.

RABIES IN CATS

Cats that have rabies are very dangerous. They generally hide in dark places and may suddenly attack animals or persons, especially children by jumping up to the face and inflicting severe wounds with their teeth and claws.

The rabid cat usually loses most of its voice, has difficulty in swallowing, develops paralysis and dies within about five days.

RABIES IN OTHER ANIMALS

The symptoms of rabies in all animals are essentially the same as those described for dogs. Ruminant animals are less apt to bite other animals or persons because of their behavior, however, at times they will attack by butting. Horses may become extremely vicious and when unre-

strained may cause severe or even fatal injury to persons. The incubation period for larger animals is generally longer than for dogs.

Rabid foxes have been responsible for heavy losses of livestock, particularly cattle, in northwest Louisiana. (Table 1 will not reflect these losses since the diagnosis in livestock is usually a clinical one, while Table 1 shows only laboratory confirmed cases.) They have also accounted for a great number of human exposures in that area. Animals suffering from rabies are without fear and wild animals such as foxes will fearlessly invade farm premises and attack persons, dogs, and domestic animals. Experiences in north Louisiana have shown that foxes that are killed while attacking in this manner almost invariably show evidence of rabies when examined in the laboratory.

BAT RABIES

The first bat found to be affected with rabies in the United States was killed in June 1953, while attacking a boy in Tampa, Florida.[2] In September 1953, a woman in Carlisle, Pennsylvania, was attacked by a bat which was found to be rabid.[3] Since the first reported case in 1953, evidence of rabies in bats has been found in Louisiana, Georgia, Alabama, Utah, Oklahoma, Minnesota, Florida, Texas, Pennsylvania, California, Montana, Ohio, New Mexico, New York, and Michigan. Burns et al[4] reported one isolation of rabies virus from brain tissue of Florida free-tail bats *(Tadarida cynocephala)* collected in New Orleans, Louisiana, in July 1955. Thirteen different species of bats have been implicated thus far in the United States, all of which are of the insectivorous variety. Four of the thirteen species are tree living or solitary bats and nine species are colonial or cave dwelling bats.

The vampire bat *(Desmodus rotundus)* in Latin America is capable of transmitting rabies for long periods of time without showing signs of illness.[5] Preliminary findings have suggested that this may also be true of our indigenous insectivorous bats. Serum surveys on clinically well Mexican free-tail bats *(Tadarida mexicana)* in certain areas have shown that a high percentage of them show specific rabies antibodies, indicating the possibility of infection and recovery.[4]

LABORATORY DIAGNOSIS OF RABIES

The symptoms of rabies are not always characteristic and the disease may or may not be recognized clinically. The occurrence of the disease can be confirmed only by laboratory examinations. These examinations are performed by well trained technicians in the State Department of Health laboratories located in New Orleans, Lake Charles, Alexandria, Monroe, and Shreveport.

The heads of all animals suspected of having rabies should be submitted through a local health unit to a laboratory for examination whether or not there have been human exposures. This will help determine the extent of the disease. Specimens should be carried to the health unit which in turn will ship the head properly packaged to the nearest laboratory.

If the animal is large, such as a fox, dog, or cow, the head should be severed just above the shoulders and only the head sent to the laboratory. If the animal is small, the entire animal may be sent. Sanitary precautions, such as the use of gloves, should be observed for the protection of the handler. If ectoparasites are present the animal should be dusted with an insecticide before handling.

Should the specimen be shipped by an individual or agency other than a local health unit, the specimen for shipment should be placed in a water tight container. This container should then be placed in a larger water tight receptacle containing ice. The inner container should contain nothing other than the specimen. Salt or dry ice should not be placed in either container. If delivery is delayed the specimen should be refrigerated but not frozen. A history data slip obtainable from any parish health unit should be completed and attached to the outer container.

The State Department of Health labora-

tories perform direct microscopic examinations of brain specimens in search for intracytoplasmic inclusion bodies or Negri bodies which are specific for rabies. Their identification makes it possible to diagnose the disease very quickly and with certainty. If, however, they are not found it can not be assumed that the disease is not rabies, since a certain number of cases of the disease do not exhibit recognizable Negri bodies, and in others they are sparse and may be overlooked. If, therefore, the microscopic examination of a brain specimen does not reveal Negri bodies, animal inoculation tests should be performed. Large scale animal inoculation studies of routine specimens submitted for diagnosis have shown that 10 to 15 per cent of those positive for rabies had been missed by direct microscopic examination for Negri bodies.[6] The absence of Negri bodies in rabid animals is considered in some cases to be due to a short duration of the disease before the animal is killed or dies. Therefore, the importance of holding biting animals in isolation rather than killing them immediately is evident. In addition to allowing for a better chance of obtaining a positive microscopic examination, it permits observation for symptoms of rabies.

Animal inoculation tests are performed in the State Department of Health laboratories in New Orleans and Lake Charles. The test animal used is the white mouse. The intracerebral injection of brain tissue containing rabies virus into these animals produces a typical infection with symptoms appearing in six to ten days. If street virus is present Negri bodies are consistently produced.

Because of the tremendous number of negative specimens found on direct microscopic examination, 1,254 in 1956, animal inoculation tests are performed routinely, in Louisiana, only on specimens from animals that have caused human exposure. Since the New Orleans and the Lake Charles Laboratories are the only laboratories doing animal inoculation tests, the other laboratories ship portions of Negri negative specimens to New Orleans. Therefore, all Negri negative specimens from animals causing human exposure are tested by animal inoculation.

HUMAN RABIES PROBLEM

Relatively few people die of rabies each year in the United States but the number of human exposures to the bites of animals, either proven to be rapid or of undetermined status, runs into tens of thousands. The number of persons exposed and given antirabies vaccine treatment annually in Louisiana is unknown, but it is certain that the figure is extremely high considering the high incidence of proven cases of animal rabies.

When rabies is present in an area, every biting animal must be suspected of having rabies until proven otherwise. All wounds inflicted by biting animals should be thoroughly cleansed immediately with soap or detergent solutions and water. Zephiran chloride in a 1 per cent solution has proved effective in inactivating the virus in laboratory animals.[7] The commonly used antibiotics have no beneficial effect other than combating bacterial infection which may be present at the site of the wound.

Subsequent treatment depends on the status of the biting animal and the site of the wound. If the biting animal can be caged, or restrained, the physician should advise that the animal be kept alive, restrained and under the surveillance of a veterinarian for ten days. The course of treatment will be influenced by reports on the clinical status of the animal during the period of observation. If the animal dies or is killed within ten days the brain should be examined for rabies. The laboratory request slip should show that a human was bitten and the animal died naturally or was killed. If this is done and Negri bodies are not found, animal inoculation studies will be done.

Table 2 is a summary of indications for specific postexposure treatment recomended by the Expert Committee on Rabies of the World Health Organization.[6] If every physician would adhere to the recommendations set forth in this table and not be

TABLE 2
INDICATIONS FOR SPECIFIC POST-EXPOSURE TREATMENT

Nature of Exposure	Condition of Animal: At time of exposure	Condition of Animal: During observation period of 10 days	Recommended Treatment
I. No lesions Indirect contact only	Rabid	—	None*
II. Licks			
1. Unabraded skin	Rabid	—	None*
2. Abraded skin and abraded or unabraded mucosa	(a) Healthy	Healthy	None
	(b) Healthy	Clinical signs of rabies or proven rabid	Start vaccine at first signs of rabies in animal
	(c) Signs suggestive of rabies	Healthy	Start vaccine immediately. Stop treatment if animal is normal on 5th day after exposure**
	(d) Rabid, escaped, killed or unknown		Start vaccine immediately
III. Bites			
1. Simple exposure	(a) Healthy	Healthy	None
	(b) Healthy	Clinical signs of rabies or proven rabid	Start vaccine at first signs of rabies in animal
	(c) Signs suggestive of rabies	Healthy	Start vaccine immediately. Stop treatment if animal is normal on 5th day after exposure**
	(d) Rabid, escaped, killed or unknown; or any bite by wolf, jackal, fox or other wild animal	—	Start vaccine immediately
2. Severe exposure (Multiple; or face, head or neck bites)	(a) Healthy	Healthy	Hyperimmune serum immediately. No vaccine as long as animal remains normal
	(b) Healthy	Clinical signs of rabies or proven rabid	As in III, 2, (a), but start vaccine at first sign of rabies
	(c) Signs suggestive of rabies	Healthy	Hyperimmune serum immediately, followed by vaccine. Vaccine may be stopped if animal is normal on 5th day after exposure.
	(d) Rabid, escaped, killed or unknown. Any bite by wild animal	—	Hyperimmune serum immediately, followed by vaccine

Hyperimmune serum to be effective must be given within 72 hours of exposure.
These indications apply equally well whether or not the biting animal has been previously vaccinated.
* Start vaccine immediately in young children and patients where a reliable history cannot be obtained.
** Alternative treatment would be to give hyperimmune serum and not start vaccine as long as animal remained normal.

influenced by undue apprehension of the patient when confronted with the problem of a human exposure, the number of persons subjected to treatment unnecessarily would be reduced to a minimum. Sellers [8] once stated:

"It is not hydrophobia but rather rabiphobia which constitutes the major and most troublesome problem to the practicing physician and health officer. The administration of antirabic vaccine to persons actually bitten or scratched by the teeth of known or suspected rabid animals is a relatively simple and justifiable procedure regardless of the outcome, in that the danger of the disease is far greater and more serious than any ill effects from the vaccine but for exposures other than actual bites the danger of treatment complications far exceeds that of either rabies or rabiphobia."

The presence of nervous tissue in the vaccine may give rise to local allergic reactions manifested by angioneurotic edema, fever, adenopathy, and shock, or even to more severe neuroparalytic manifestations, known as "treatment or post-vaccinal paralysis," and even death.

Tissue vaccine reactions may occur during the course of treatment, or more often following the first injection, to a person that has previously received rabies vaccine. To offset this danger the Expert Committee on Rabies of the World Health Organization [6, 9] suggests a change to a vaccine produced from the brain tissue of a different species of animal. (i.e., from rabbit brain tissue to sheep brain tissue.) If, however, the reactions are of a neuroparalytic nature the course of treatment should be discontinued immediately.

As to the question of re-exposure following previous antirabies vaccine treatment the Expert Committee [6, 9] recommends the following:

"—if this situation arises within three months of the first course of vaccine, no further treatment is necessary unless the second exposure is of a severe type. If the interval is between three and six months two reinforcing doses of vaccine, one week apart are indicated, whereas if more than six months' interval has elapsed the treatment should be on the same basis as if it were an original exposure."

ANTIRABIES SERUM

Antirabies serum is a relatively new product produced by hyperimmunizing horses with a fixed rabies virus. It is recommended as an adjunct to vaccine treatment particularly in the treatment of persons bitten about the head, neck, and shoulders, in which case the incubation period is likely to be short. The protection is short lasting since the hyperimmune serum does not stimulate antibody production but confers only a passive immunity. It is intended only to bridge the gap between exposure and the time when the vaccine induces effective antibody responses.

The serum is administered intramuscularly and, when possible, in and around the wound site. For best results it should be administered as soon as possible after exposure and preferably within seventy-two hours, but even later if the exposed person is seen for the first time. Since rabies antiserum is of equine origin patients should be questioned carefully regarding allergic sensitivity and should be tested for sensitivity before the serum is administered. Reactions to the serum do occur. They should be anticipated and managed as any foreign protein reaction would be managed.

PREVENTION OF HUMAN EXPOSURE

The majority of human exposures could be prevented if every community in the state would enforce the state law requiring annual vaccination of dogs against rabies, and would provide for the collection and destruction of all stray dogs. If these two things were done in every parish of the state many persons would be saved heartache and possible reaction to the vaccine, and physicians would not so often be placed in the position of deciding whether or not to administer a life saving but dangerous vaccine.

SUMMARY

The prevalence and geographical distribution of rabies by species in Louisiana for the period 1946-1956 is reported. The clinical manifestations and the laboratory procedures for confirming the diagnosis of rabies in animals are discussed. Recommendations for handling animals that have caused human exposures, procedures for

shipping animal heads to the laboratory, and the location of laboratories in Louisiana with rabies diagnostic facilities are given. The handling of humans exposed to rabid animals, including wound treatment and the indications for the use of antirabies vaccine and hyperimmune serum, are discussed.

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INFORMATION ABOUT HOME-TOWN MEDICAL TREATMENT FOR VETERANS *

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NEW ORLEANS

The Veterans Administration is initiating, on a trial basis, a new method for authorizing home-town medical treatment for *selected* eligible veterans.

In accordance with established policy, fee-basis medical services are customarily authorized in monthly cycles, upon receipt of a request from the treating physician for initiation and/or continuation of treatment. These requests are subject to review and approval of the Chief Medical Officer, and continued treatment is reauthorized for a like period (30 days). Under the new procedure, an exception will be made to the above practice by field stations of the V.A. in procuring medical services from participating physicians for *selected* V. A. outpatients. The outpatient treatment folders of eligible veterans presently under authorized fee-basis care are being screened as expeditiously as possible, and those *selected* patients meeting the following criteria will be designated as "Category LT (long-term treatment) Outpatients":

1. Immediate supervision is exercised by a properly qualified fee-basis physician who has evidenced his desire to cooperate with the V.A.

2. Treatment will be required over a protracted period of time.

3. The veteran has demonstrated his acceptance of treatment services made available by the Government by keeping appointments regularly unless there were valid reasons to the contrary.

4. Professional and ancillary services required by the veteran on a recurring basis can be forecast within reasonable limits.

Letters will be directed to the physician from whom the *selected* patient is receiving treatment, requesting his concurrence in the establishment of this procedure. Upon concurrence of the fee-basis physician, the veteran will also be notified concerning the long-term treatment method.

Under the current procedure, the V.A. authorizes visits only on a month-to-month basis. The letter of authorization (VA Form 10-2568a) is mailed to the physician, designating the number of treatments authorized that month. At the end of the treatment month, the physician fills in the dates of the patient's treatments, writes his progress notes and returns the form for billing purposes. The physician also completes an attachment (VA Form 10-2690b), on which he indicates the number of treatments to be required for the following month.

The above procedure has limitations. Mail difficulties delay correspondence between the V.A. office and the physicians. The physician must request monthly renewal of his authorization. There are

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† Chief Medical Officer.

times when the physician forgets, or is negligent in requesting renewal of treatment authorization; this results in a hardship on the veteran needing continued care.

Under the new trial procedure, we will be able to authorize for *selected* patients treatment for a longer period than one month. The V.A. office will forward to the fee-basis doctor's office a form indicating that the Veterans Administration has authorized the veteran's treatment for a longer period. Instead of returning the V.A. forms each month, the physician will now be asked to submit his bill each month on his own letterhead. He must personally sign this letter, and the letter must include the statement, "I certify this bill is correct, and payment therefor has not been received."

This new system will have many advantages, especially for the veteran requiring long-term medical planning, when the number of treatments per month is constant. It will enable the physician to give uninterrupted treatment without waiting to receive his authority each month. Because this is a new program, we are proceeding cautiously. The patients to be included are being carefully selected. We plan to arrange a gradual expansion to include other veterans, once it is shown that the new system is workable, and has demonstrated its advantages.

In this new method, progress notes are not necessary each month. However, at the end of each three-month period, we shall require a summary of the patient's progress during that period. This summary will then form the basis for our decision to continue this authorization practice or revert to the monthly procedure.

Travel necessary in the CATEGORY LT cases will also be authorized for a longer period.

This revised system has no effect on other aspects of our fee-basis program. X-ray and laboratory studies will be provided as usual upon request. As heretofore, prescriptions may be mailed to our Pharmacy or taken to a home-town pharmacy. Also, patients under fee-basis treatment will still be called in to the V.A. office for periodical evaluation.

The success of this plan will depend in large measure upon the effectiveness with which orientation is provided to participating physicians to acquaint them with the special relationships which exist in the processing of CATEGORY LT cases. We feel that the implementation of this plan will be of definite value to both the veteran and the fee-basis physician. In our opinion, it will save time for the participating physicians, and will enable them, at the end of each three-month period, to give us a better summary of the patient's condition and his response to treatment than we have been able to obtain previously. Also, we feel that the veteran will be able to secure continued and proper treatment.

If there are any questions that fee-basis physicians may have concerning this program they are invited to communicate with the V.A. stations at New Orleans or Shreveport, whichever is closer, by mail or 'phone.

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SOME IMPORTANT DEVELOPMENTS PRESENTLY INFLUENCING DENTAL HEALTH IN AMERICA*

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Several things have occurred in the past which adversely influence, in one way or another, the dental health and welfare of the American people at the present time; and will continue to do so in the nearby future. I wish to direct attention to four separate developments that have taken place during the past forty years which will have to be discredited and discontinued, and their misleading influences will have to be overcome for people to en-

* Studies promoted by facilities to which the author has had access at The School of Medicine, Tulane University of Louisiana, and by aid for equipment and supplies provided by the University.

joy the highest degree of oral cleanliness and dental health. They are:

1. Improper methods (Charters, Stillman, others) of brushing the teeth;
2. Placing undue emphasis upon brushing the teeth immediately after each meal;
3. Artificial fluoridation of communal water supplies;
4. Topical application of fluorides.

1. IMPROPER METHODS (CHARTERS, STILLMAN, OTHERS) OF BRUSHING THE TEETH

During the first quarter of the present century much attention was directed to methods of brushing the teeth, with the idea of massaging the gums at the same time. Alfred Fones was a pioneer in the field of oral hygiene, and especially in training and in promoting the work of the dental hygienist. He established the first school [1, 2] for their training. He also published detailed instructions [3] for the home care of the mouth, and got out several promotional pamphlets and a textbook intended especially for dental hygienists. A reprint of the fourth edition of this book,[4] in 1942, describes the same method of brushing the teeth as he first described.[3] It has been referred to as the "big circle" method and consists particularly of brushing the buccal and labial sides of the teeth, held in occlusion, with a wide circular movement to include also the gums high and low over the teeth. A large soft brush was used with the idea of massaging but not injuring the gums. To his credit Fones advocated vigorous scrubbing of the occlusal surfaces of the teeth and, as a part of his mouth hygiene, he also included cleaning of the proximal surfaces about the contact areas with dental floss.

In the Charters method [5, 6] the bristles are directed into the embrasures between the teeth, pointed somewhat occlusalward, the sides and not the ends resting upon the gums. Short rotary movement of the brush is supposed to clean the teeth within the sulci and at the same time to produce "an ideal massage of the gums" by pressure with the sides of the bristles. He warns especially "do not allow the points of the bristles to rest upon the gums".

In the Stillman method [7-9] the bristles are placed obliquely to the long axis of the teeth or at an angle to the gingival surface and directed apically, the bristle ends resting partly on the gingivae and partly on the cervical portion of the teeth. "The bristles should never be pointed at right angles to the surface of the gingivae, for in this position they may cause puncture. Pressure on the gingivae is desired with the least amount of friction or injury." "This act is repeated several times and the handle is given a slight rotary motion but not enough to cause the bristle ends to move from the positions in which they were first placed".

Numerous modifications, especially of the Stillman method, have been advocated and taught. The chief of these provides that the sides and ends of the bristles be applied in a sweeping movement towards the occlusal, from above downward for the uppers and from below upward for the lowers. Many dentists believe and insist that this method must be followed.

In a book of more than 700 pages on the use and abuse of the toothbrush Hirshfeld [10] inclines to prefer the Charters method which differs from the Stillman method essentially in the direction of the bristle ends—in the former they point occlusally, in the latter apically. He says these two methods are superior to others generally in that the stroke used is shorter and less forceful, thus minimizing the "tendency to gingival traumatization and tooth abrasion". Throughout his discussion, the idea prevails of taking care not to puncture or injure the gums with the ends of the bristles. He urges especially to avoid "penetration of the gingival crevices by the bristle ends". It should be noted that this is exactly the opposite of what is absolutely necessary. The tooth must be cleaned within the gingival crevice. This can be done, to the extent it can be done with the brush, only by applying the ends of the bristles of the right kind of brush [11] to the areas on the tooth within the crevice to be cleaned.

These improper methods or modifica-

tions of them have been advocated by leading authorities and taught in dental schools so long and so positively until they have become firmly established in dental practice. The dentist who advises his patients in this regard recommends the particular method or modification which he accepts as the best.

In papers or in discussions wherein the method of brushing is given the Charters or Stillman method or a modified Charters or Stillman method is usually specified. Often the speaker refrains from being specific and calls it "an approved method" or "an accepted method", neither of which means anything definite.

One does not find in the writings of the originators and promoters of these methods of brushing the teeth any indication that their opinions in this regard were based upon accurate personal knowledge and experience as to the local microscopic etiological and pathological conditions in the two principal diseases affecting the teeth—caries and periodontoclasia. These diseases are caused by microscopic organisms, the lesions at first are microscopic in extent, they advance microscopically, the tissues involved are composed of microscopic elements, and the destructive processes are microchemical. Therefore, one can know of his own knowledge and understand these conditions upon which effective prevention must be based, only through microscopic studies and experience.

Less than 25 per cent of the loss of teeth in this country results from caries; more than 75 per cent from periodontoclasia. Periodontoclasia begins in childhood and is a universal disease of man. Everyone, at anytime, has lesions of some stage of activity and advancement, and these can be demonstrated by proper microscopic examination of suitable material from the locations concerned. Practically all people sooner or later lose their teeth from this disease, if they live long enough. It prevails among people of all races and in all levels of civilization, the rate of progress being influenced by the oral hygiene habits and methods of the individual. It affects the most cultured and intellectual people of the world and even more severely, the primitive races,[12-14] including the African bushman [15] whose habits and characteristics, in many respects, are more like those of lower animals than of man.

Caries is limited to people whose diet contains the necessary fermentable (mostly refined) carbohydrates. The initiation and progress of the lesions of this disease also are influenced largely by the effectiveness of the personal oral hygiene habits of the individual. At the present time very few people know and accurately follow, or have any way to learn the exact method which must be followed to prevent caries. Consequently, almost all people in this country have more or less caries lesions, and most of these tend to progress in time, even though they receive the best treatment and restorations that can be given. Many of the teeth in which caries lesions originated in childhood are ultimately lost, however good the dental service may be. This can be prevented only by preventing the lesions before they start.

The purpose of personal oral hygiene is maintenance of oral cleanliness and prevention of both caries and periodontoclasia, and their consequences. The purpose is accomplished however only to the extent the method or technic, of which proper use of an appropriate toothbrush is an important part, removes and prevents reaccumulation of harmful amounts of the essential etiological material at the locations where the lesions of these diseases originate and advance.

The confusion and inadequacy of information regarding these two principal diseases is indicated in testimony [16] given by Dr. Harry Lyons on February 29, 1956, before a subcommittee of the U. S. Senate. He called attention to the vast and complex problems of tooth decay and its infectious sequelae, and stated that "the so-called gum diseases are essentially complete mysteries as far as their causes and prevention are concerned". He was speak-

ing as president-elect of the American Dental Association, as dean of the School of Dentistry of the Medical College of Virginia, and as a member of the National Advisory Dental Research Council for the National Institute of Dental Research.

Caries lesions originate only at locations where heavy bacterial film (plaque material) is continuously present. To prevent initiation and advancement of such lesions it is necessary to prevent or minimize the accumulation and retention of this material which is composed largely of filamentous types of micro-organisms having one end attached to the tooth surface and the other extending outward towards the surface of the film mass. This characteristic has been illustrated [17, 18] and has been adequately documented [18] by references to numerous other specific illustrations in the literature. These fundamental facts can be confirmed by microscopic examination of plaque material removed from extracted tooth specimens or of sections of enamel cuticle removed with plaque attached.

Removal of this material with the toothbrush from the locations to which the ends of the bristles can be applied, is only partial at best. There are many organisms left and these tend to grow and reaccumulate, thus renewing the film pad or plaque. By repeating the cleaning at suitable intervals harmful reaccumulation and caries producing conditions at the particular locations are prevented.

Almost all caries lesions in young people (under adult age) originate either in the pit and fissure depressions on the occlusal surfaces or on the proximal surfaces around the contact area. The vulnerable areas on the occlusal surfaces can be cleaned well by vigorous application of the ends of the bristles of the toothbrush. It is physically impossible to clean the proximal surfaces where caries lesions originate by any method of brushing with any kind of brush. These areas can be cleaned adequately only by passing the right kind of dental floss [19] through the contact area between the teeth and back out, thereby removing most of the material which is essential for caries activity.

The next most frequent location for caries lesions to originate is in the cervical region at the cemento-enamel junction. Normally this junction line is covered by the epithelial attachment [20] and is not exposed to the necessary conditions (bacterial plaque) for caries. After the gum recedes sufficiently (usually not before adult age) to expose this line at any place caries lesions may begin, if the location is not kept sufficiently clean. This can be done by the use of the toothbrush only to the extent the ends of the bristles of suitable characteristics are vigorously applied to the areas to be cleaned. Please note that this is exactly the opposite of the improper methods of brushing referred to above.

The bristles of the brush cannot reach and clean the interproximal cervical region. This can be done only by proper application of the right kind of dental floss [19] to the particular location.

Periodontoclasia (gingivitis, "pyorrhoea alveolaris", "periodontal disease") is a purely local, continuous, inflammatory disease resulting from local etiological conditions. At anytime after a tooth has erupted and attained its occlusal level, suitable material from the gingival crevices, especially the interproximal crevices, always contains from a few to many pus cells; and sections of tissue from this location show more or less inflammation upon microscopic examination. The intensity or activity of this early stage inflammation (gingivitis) varies greatly in different people and in different locations in the same mouth, influenced largely by the oral hygiene conditions present. This early unrecognized and usually symptomless gingivitis constitutes the early stage of a progressive pathological process which continues to advance and never ends until the involved tooth is finally lost (extracted or exfollicated), usually after middle life, sometimes earlier. Much confusion has resulted from failure to recognize the early stage of this disease.

Kronfeld [21] says "the presence of a small number of inflammatory cells in the subepithelial tissues can be considered as indicating a gingivitis; but if it is, almost every human gingival crevice would have to be considered pathological which would only cause confusion".

All periodontoclasia lesions begin at the gingival margin where bacterial material (plaque) is continuously produced and is retained on the tooth at the entrance to the gingival crevice. The bacterial mass tends to advance (grow) into the crevice and cause irritation and microscopic inflammation (gingivitis) of the crevicular epithelial tissue resting against it. In time concretions (mostly calculus) form on the surface of the tooth in the deeper part of the bacterial mass. This is composed largely of filamentous types of micro-organisms attached to the tooth. The foreign material on the tooth and extending into the crevice now consists of the hard concretion overlaid by the film of growing bacterial material, and this is mechanically more irritating to the gingival tissue resting against it. The inflammation and suppuration resulting from the advancement of this foreign material on the surface of the tooth within the crevice (now a "pyorrhoea" lesion) continues (usually over long periods of time) and the attachment of the gum on the tooth recedes.[20] As the process advances inflammation and resorption of the supporting tissues—periodontal tissue and alveolar bone—ensue and progress as long as each particular tooth is retained.

At all times this foreign material is found present on the surface of the tooth within the crevice, thus making the tooth itself, in effect, a foreign body extending into the chronically inflamed and suppurating surrounding tissue. This fundamental fact has been illustrated [17, 18] and has been adequately documented [18] by references to numerous other specific illustrations in the literature. It can be confirmed by microscopic examination, also with the dissecting microscope, of specimens of extracted teeth suitably stained to bring out the landmark [22] which indicate the location of the outer border of the epithelial attachment. This locates the very bottom of the lesion when the tooth was in the mouth. The bacterial film always extends to this line [23] and the underlying subgingival calculus extends [24] almost to it.

The only way by which the early stages of this disease and further advancement of existing lesions can be prevented is by cleaning the teeth within the gingival crevices sufficiently frequently to prevent reaccumulation of the etiological foreign material. This can be done with the toothbrush only to the extent the bristles of appropriate dimensions [11] are directed into the crevices and reach the material to be removed. This is exactly the opposite of the improper methods of brushing referred to above.

The bristles can be directed into the exposed crevices in the sulci between the teeth but they cannot be applied to material in the deeper part of the interproximal crevices. This can be removed by the use of the right kind of dental floss [25] carried to the very bottom of the crevice, but in no other way now known.

Scales of calculus must be removed by a dentist who understands the conditions that exist. Although calculus does not reform in locations that are cleaned daily, occasional cleaning and rechecking by the dentist is needed to discover any locations that may have been missed by the daily routine.

A method of personal oral hygiene based upon the above indicated fundamental facts has been designed, by which the highest degree of oral cleanliness and dental health can be maintained. Both caries and periodontoclasia are practically prevented and further advancement of existing lesions, especially early stage lesions, is substantially retarded or prevented. I have referred to this method as "the necessary method of personal oral hygiene",[17] "the right method of personal oral hygiene", "an effective method of personal oral hygiene".[18] In speaking to

dentists who have learned and are teaching it to their patients or to people who know and follow it, I usually refer to it as "our method of personal oral hygiene".

Anyone who knows of his own knowledge and understands the local microscopic etiological and pathological conditions in the two principal diseases already knows in advance that approximately this exact method is necessary and that any neglect or deviation from it would be less effective to the extent of such neglect or deviation.

Improper methods of brushing the teeth not only are not effective but teaching and promoting them misleads people and detracts from their learning and following the method of personal oral hygiene which is absolutely necessary.

2. PLACING UNDUE EMPHASIS UPON BRUSHING THE TEETH IMMEDIATELY AFTER EACH MEAL

In 1938 Stephan [26] designed a microcolorimetric technic for determining the *p*H of plaque material removed from the surfaces of teeth, and of debris from cavities. In 1940,[27] employing a delicate antimony electrode, he measured the *p*H of plaques and cavities in situ. He found that the lowering of the *p*H of the plaque reaches its greatest intensity during the first thirty minutes after a glucose rinse and that little or none of the effect remains after two or three hours. Fosdick and associates,[28, 29] testing plaque material from teeth for *p*H with a microglass electrode, found similar rapid reduction after ingestion of carbohydrates.

Stephan [30] also found that there is a quantitative difference in the intensity and duration of the acidity produced by carbohydrates on the teeth of caries-free and caries-active individuals, the *p*H drop being greatest in cases with extensive caries activity.

With the idea of making practical application of the above information, dentists and dental authorities have advocated brushing the teeth immediately after each ingestion of sugar-containing food.[31] The American Dental Association got out a pamphlet [32] advocating the procedure.

Commercial interests, taking advantage of this information and especially the later clinical report of Fosdick,[33] have extensively and continuously advertised the idea that the teeth must be brushed immediately after each meal. This is done in connection with appealing, extravagant and misleading advertising for the purpose of promoting the sale of their "superior dentifrices". For several years anyone who reads current periodical literature, listens to the radio or watches T.V. programs has been repeatedly advised to brush his teeth promptly after each meal.

In 1950, Fosdick published [33] the results of an extensive study carried out over a two year period by a group of 10 dentists on a total of 946 (423 controls, 523 test subjects) college students in 7 institutions. The test subjects were required to brush their teeth after each meal. The controls were allowed to follow their usual procedure. Both clinical and x-ray examinations were employed. Statistical methods were employed in analyzing the data. The results varied considerably when different methods of estimating them were used but a reduction in the neighborhood of 50 to 60 per cent in the average number of new carious surfaces over the two year period was indicated.

The test subjects were instructed to rinse the dentifrice from the mouth after each brushing and when brushing was impossible to rinse the mouth thoroughly with water. The author [33] recognized that the rinsing and not the brushing may play a large part in the results. "It is obvious that the toothbrush or the abrasive cannot physically reach the inner portions of the proximal areas. Hence it is to be expected that the forcible dilution of the material in these areas might account for the results. There is considerable evidence to substantiate this possibility". Thorough rinsing of the mouth soon after each meal not only dilutes but it washes away much of the soluble material, in addition to particles of food material on the teeth.

Brushing the teeth immediately after meals, if properly done with the right kind of toothbrush, probably does no di-

rect harm, but emphasizing and promoting it tends to encourage placing undue reliance upon it and to detract from the essential and entirely effective cleaning of the teeth at night before retiring. It only promises some preventive effect against caries. Rinsing vigorously without the brushing or dentifrice does about as much good.

Brushing alone, in the usual way, could have little or no preventive effect upon the other more important disease, periodontoclasia, for the reason that it does not clean the proximal surfaces within the gingival crevice where the etiological material (bacterial film and calculus) accumulates.

Since the teeth must be cleaned effectively (by the proper use of the right kind of both toothbrush and dental floss) every night before retiring, and they should also be brushed upon arising in the morning, brushing also after each meal, making a total of 5 times a day, would increase any harm that may result from overvigorous use of current harsh inappropriate brushes. "Nothing has been so destructive of tooth structure or has caused so much recession of the investing tissue as the use of stiff, ill-shaped brushes." Most people who have habitually brushed their teeth for several years with the usually employed brushes have worn back the edges of their gums over the high places to some extent.

Brushing the teeth immediately after each meal is not convenient or practical and will not be carried out by many people. Since, it is not necessary, and of itself, is not of any considerable benefit, placing undue emphasis upon it tends to mislead and confuse the public and thereby to unfavorably influence dental health.

3. ARTIFICIAL FLUORIDATION OF COMMUNAL WATER SUPPLIES

Previous observations relative to "mottled enamel" [34-38] led to the discovery by Churchill,[39] in 1931, that this condition was caused by the fluoride ion in the water supply. Dean and Evolve [40] concluded that 1 ppm fluoride in drinking water was not harmful and therefore "has no public health significance". Dean [41] in 1942, announced that caries incidence in children was about 60 per cent less in areas where the fluoride was at or above 1 ppm, as compared with nonfluoride areas.

This and much other confirmatory evidence of substantial reduction in caries damage from naturally fluoridated water provided a logical and supposedly sound basis for artificially adding fluorides to communal water supplies, up to what was considered to be the optimum level of 1 ppm. The catch was, and still is, the unwarranted assumption that this powerful chemical, in such small doses, has no harmful effect upon other organs and tissues of the body; while at the same time it is capable of profoundly affecting the teeth, and in some unknown but supposedly harmless way, of significantly reducing the incidence and retarding the pathological process of caries. Just why fluoride selects only the teeth to thus favorably affect or how this beneficial action by it is brought about have remained confused or unrecognized. The general belief is that such teeth, which contain somewhat more fluorine are therefore more resistant to caries activity.

Several separate study projects were set up for testing artificial fluoridation as compared with little or no fluoride in the water. Progress reports [42-52] from time to time, and now some final reports after ten years [53-56] all confirm the earlier observations that caries damage is significantly reduced in areas of naturally fluoridated water and about as much where water is artificially fluoridated to 1 ppm. or more. A liberal over-all estimate from such of these reports as I have seen would be an average of about 50 per cent reduction in the caries rate in children. Some of the more favorable age groups show somewhat greater effect.

These results would be well worthwhile if they were secured without harmful effect, either to children who receive the most caries retarding benefit or to older people who benefit less or not at all. They

are not. The reduction in the incidence of cavities in teeth (the advanced stage of caries) from fluoridated water results entirely from the contemporary increase in periodontoclasia (gingivitis) activity. This has not been recognized by the originators, promoters, and advocators of artificial fluoridation. However, it is a fact, nevertheless. The incidence and progress of caries lesions are reduced in the same way by increased gingivitis activity from any other cause, such for instance as Vincent's disease, numerous systemic diseases and conditions, certain vitamin deficiencies and certain other chemical poisons.

In order to understand the relationship between caries and periodontoclasia and the influence of ingestion of fluorides, it is necessary to be clear on certain fundamental facts relative to the nature of the pathological process, the prevalence of the early stage lesions of these diseases and how they advance.

Enamel caries lesions originate at certain locations where fermentable carbohydrates are retained and minute quantities of acids are produced by bacterial action. Caries does not occur without carbohydrates or without bacteria. Traces of acids produced at frequent intervals, or continuously, partially decalcify the enamel giving rise to a chalky white condition in which the enamel at the particular location is softer ("chalky enamel") and can be dug into with a sharp instrument. If the etiological conditions continue, the partial decalcification advances into the enamel and sooner or later may reach the dentin. Disintegration of chalky enamel may result in a break in the surface producing a depression or cavity, small and shallow at first, which continues to enlarge or advance. After cavity formation, and sometimes before, the caries lesion at accessible locations usually may be recognized and diagnosed. This should be considered the advanced stage caries lesion. There was a considerable period of time however, from the normal unaffected condition at the particular location, to this clinically diagnosable caries lesion. During this entire period the early unrecognized caries lesion at first is microscopic, but it usually progressively increases in size and in depth. The rate at which the process in each lesion progresses is determined by several variable factors, some of which may accelerate, others may retard it.

The most important factor in retarding proximal lesions is interproximal gingivitis (early stage periodontoclasia). This is always present to variable extent and in variable degrees of activity, from microscopic lesions only to active visibly inflamed lesions which bleed easily on pressure. Inflammatory exudate, which contains more or less blood serum and therefore has approximately the same pH as blood,[57] tends to neutralize or counteract acids produced in the environment and thereby retard the caries process. If gingivitis is sufficiently active the caries process is slowed down or may be prevented from reaching the stage for clinical diagnosis. Many such retarded early stage lesions remain inactive indefinitely, others may progress slowly and break down in later life, leading to the impression that new caries lesions have developed. Actually practically all enamel caries lesions originate within the first year or two after the eruption of any given tooth.

The prevalence of early stage proximal caries lesions, either active, retarded, or inactive, in any given population can be learned only by examination by proper technic of a considerable number of extracted tooth specimens. Good technic for this purpose is to dip the specimen in 5 to 10 per cent HCl for less than thirty seconds to release the enamel cuticle, dip in water followed by 0.25 per cent acid fuchsin to improve contrasts and differentiate other tissues from enamel, and then examine under the dissecting microscope. The depth to which such early stage lesions extend can be satisfactorily observed if the specimen is split through the lesion with a double side flat separat-

ing disc or other suitable instrument.

I have examined many hundreds of specimens in this way. Lower incisors seldom decay. If these are omitted I have found proximal caries lesions in from 75 to more than 90 per cent of the specimens in the different collections examined. Many of them, even in those from older people, are still in the chalky enamel stage and have not reached the cavity stage. Their advancement has been retarded or prevented for many years. It is not unusual to find some such lesions with more or less calculus over them, indicating that there was no acid action at the particular location, at the time it was deposited, or since that time.

Reports have shown that the caries preventive effect of fluoride ingestion is remarkably selective [58-63] relative to location of lesions. The greatest benefit applies to proximal lesions, much less to occlusal or other lesions. Now the Newburgh-Kingston reports [56, 64] confirm this pronounced selective effect, even where there is only about 1 ppm fluoride in the water. The antacid effect of inflammatory exudate applies especially to the interproximal region and thereby retards proximal caries. Any increase in gingivitis activity, however slight, increases the amount of exudate and correspondingly retards caries activity. The increase from as little as 1 ppm. of fluoride in the water is sufficient to substantially retard proximal caries but it has much less effect upon caries at other locations.

During the past fifteen years I have examined more than a thousand persons, mostly university personnel, more than half of them medical students. These people have been from different parts of the country, mostly from the gulf and other southern states, a good many of them from areas having naturally fluoridated water. On an average, those from known fluoridated areas have sustained less damage from caries than the others. On the other hand, they have sustained more damage from periodontoclasia and often still have more gingivitis. Several of them stated that although their relatives and acquaintances in their communities did not have much trouble from caries, some of them had more trouble from "gum disease" and sometimes already were wearing dentures at relatively early ages.

People who have naturally fluoridated or artificially fluoridated water will continue to experience less caries and more periodontoclasia damage. Their total dental health, therefore, will be unfavorably influenced as long as these harmful conditions continue.

4. TOPICAL APPLICATION OF FLUORIDES

The idea that resistance to dental decay from ingestion of fluorides may result from incorporation of fluorine in the tooth substance led to topical application of fluorides for prevention of caries. Numerous experiences have been reported,[65-77] the results varying from none [65, 77-80] up to as much as 50 per cent reduction [33] in the caries increment. Most of the observations have been on children. Some reports indicate some slight caries preventive effects in adults [72, 73] others none.[77, 79]

At least several separate treatments are considered to be necessary [81, 82] to secure any marked reduction, 7 to 15 applications [69] yielding the best results. The preventive effect has been found to subside or to disappear [83-85] following interruption or discontinuance of the treatment.

More recently topical stannous fluoride has been reported [86] to more effectively prevent caries than sodium fluoride; also to be effective in a toothpaste [87] although sodium fluoride is not. It has been found experimentally to be markedly superior to sodium fluoride [88] in protecting powdered enamel from the action of acids. The anti-enzyme effect of stannous fluoride has been shown to be a function of the tin content [89-91] and not of the fluorine.

In carrying out the topical fluoride treatment a "thorough prophylaxis", which increases the uptake of fluoride,[92] at one or more of the several treatments in the series is considered to be necessary. Elimination of this reduces the caries preven-

tive effect by one half.[82, 93] This means that in the most over-optimistic claim of 40 per cent prevention 20 per cent results from the prophylaxis and not more than 20 per cent can be attributed to the fluoride.

In the Shaw publication in 1954, Bibby and Brudevold [94] tabulated the caries control reported by 16 different authors in 31 separate studies of topical application of sodium fluoride and by 7 authors using other fluorides. In the light of the information in their two tables and of much other information in the literature, and considering that at least 20 per cent reduction results from the prophylaxis and perhaps other influences associated with the treatment, it is evident that topical application of fluorides has little or no specific caries preventive effect.

In 1948, Congress, influenced largely by the urgent request, advice and recommendation of representatives of the U. S. Public Health Service and of organized dentistry, appropriated $1,000,000 for a nation-wide demonstration and promotion of topical application of 2 per cent sodium fluoride.[95, 96] The stated pupose was to set up (roughly) one "field demonstration mobile unit for each state; to demonstrate to dentists, dental hygienists, state and local health department personnel, et cetera, the correct technic of making sodium fluoride application to the teeth; and generally to publicize and promote interest in the procedure".

The program was hastily inaugurated in 1948 and vigorously pursued. By October 1950, demonstrations had been conducted by the demonstration teams in 658 communities;[97] and in many more since that time, all over the country.

This procedure, which has little or no specific caries preventive effect, has been promoted, more or less, also in many other countries. Dean [98] quotes H. J. Schmidt, secretary general, European Organization for Research on Fluorine and Dental Caries Prophylaxis, as stating that it has been utilized extensively in recent years in Denmark, England, Finland, Germany, Holland, Hungary, Italy, Sweden, Switzerland and Yugoslavia.

Even now this procedure is being extensively publicized and promoted by the American Dental Association, especially through a leaflet [99] printed and supplied for wide distribution, mainly through dentists in their offices. In this leaflet the Council on Dental Health of the American Dental Association recommends fluoridation of communal water supplies. They also recommend topical application of fluorides for children who do not have fluoridated water; and for those who do, unless they were born in a fluoridated area. They recommend a series of four separate applications at intervals of two to seven days, a course of such treatment to be given preferably at the ages of 3, 7, 10, and 13. They claim that this "will reduce the occurrence of dental decay by an average of 40 per cent".

The first application of fluoride in the series is supposed to be preceded by a thorough cleaning of the teeth, the others not. Any reduction in the occurrence of dental decay from this treatment results largely, if not entirely from the prophylaxis and is small compared with practically 100 per cent prevention which results from the right method of personal oral hygiene. Even if it is believed that there is a specific effect, which there is not, amounting to as much as 20 per cent caries reduction from the fluoride, there is still no need for it.

Continued promotion of topical application of fluorides tends to perpetuate the existing confused information relative to caries and to further postpone the time when those who wish information can learn the fact that prevention of caries depends essentially upon effective personal oral hygiene plus occasional cleaning of the teeth by the dentist, and not upon any kind of medical treatment.

Topical fluoride could not have any preventive effect upon the much more important disease—periodontoclasia—which is always present, more or less, as gingivitis in childhood, and continues to ad-

vance from that time onward. On the other hand, the right method of personal oral hygiene, regularly followed, prevents or controls this disease and at the same time prevents caries and maintains a high state of oral cleanliness.

COMMENT

Many variable factors and conditions contribute more or less to the origin and advancement of the lesions of both caries and periodontoclasia. It is not necessary to know, understand, or control each one of them in order to prevent these diseases. It is only necessary to know and to prevent or minimize the essential local etiological conditions — conditions without which the lesions do not occur. These consist of accumulation and retention of foreign material, composed primarily of bacteria, at the particular locations where the lesions originate. The necessary physical removal of this material at appropriate intervals (at night before retiring) can be accomplished only by the right method of personal oral hygiene. In the light of all presently known facts and experience any neglect of, or deviation from this method reduces the benefits in proportion to such neglect or deviation.

Personal oral hygiene is an individual and a personal matter. Each person must know and accurately follow an effective method. Such a method will be taught only by dentists (or others) who know and follow it themselves. Those who have the information and experience know that the highest degree of oral cleanliness and dental health results.

Any institution, agency, organization, or group concerned with promotion of dental health, not interested in looking into or confirming the fundamental facts upon which effective personal oral hygiene must be based, but wishing only to know the clinical observations of dentists who have had the necessary experience, now have the opportunity. Names can be furnished of dentists of the highest professional standing in their respective communities in 17 different states who have learned this effective method and have been enthusiastically teaching it to their suitable patients, some for several years. Their experiences and results surely would be interesting and enlightening to others who have not had such experiences. These dentists could be contacted in any practical way, or better still, they could be brought together in groups (a dozen or several times that many if wanted) for conferences and discussions.

Any one of these dentists could call in numerous patients for illustration of results, who have been following this effective method for several years. Individuals can be presented, of all ages up to past 80, who follow this method and are maintaining practically complete dental health thereby.

Improper and unnecessary brushing discussed under 1 and 2 above tend to correct themselves. The harmful influence of their promotion should gradually decline as more dentists learn and teach, as they surely will do sooner or later, effective personal oral hygiene.

Artificial fluoridation of communal water supplies is rapidly expanding. It has been advocated and promoted originally and continuously by the U. S. Public Health Service and by the American Dental Association. It has been officially endorsed and approved by several of the foremost national (and many regional) scientific organizations, including the American Medical Association [100] and the American Association for the Advancement of Science,[101] said to be the largest body of scientists in the world. Recently a group of more than a hundred prominent citizens and leading authorities in their respective fields, many of them physicians, organized a strong endorsement and recommendation [102] of fluoridation, especially for the city of New York.

Under these circumstances of overwhelming authoritative and influential support, artificial fluoridation has been adopted in several hundred communities [103] in this country. The trend is gaining momentum and promoters of it are meeting with greater success all the time.

A large number of reports of observations in naturally fluoridated districts and now in artificially fluoridated communities all show that the incidence of the advanced stage of caries—cavities and extracted teeth—in young people is reduced by fluoridation. This is accompanied by and results from the contemporary increase in periodontoclasia activity. It only increases the activity of this disease, which all people have from early childhood onward. It does not make sense to fluoridate the water, thereby increasing the activity of this more important disease, in order to lessen the caries activity.

Whenever the relationship between the early stages of the caries process and the early stages of periodontoclasia is better understood and the harmful effect of fluorides in this regard, is recognized and can become known, as surely will occur sooner or later, artificial fluoridation of public water supplies will have to be discontinued. Until that time its unfavorable influence upon dental health will continue wherever it has been adopted.

Sufficient increase in periodontoclasia (gingivitis) activity to retard caries results from 1 ppm fluoride in the water, which is therefore more harmful than beneficial, even to young children. The caries preventive effect is much less in older people but increased periodontoclasia activity results from chronic fluoride intoxication at any age before the teeth are finally lost in later life.

There is considerable difference of opinion as to the influence of association between caries and periodontoclasia.[104-106] Many experienced dental practitioners are of the opinion that there is less caries activity in mouths with the most active periodontoclasia and that the two diseases tend to be mutually exclusive.

There are many reports in the literature relative to the influence of fluoridated water upon periodontoclasia (gingivitis) most of them indicating little or no effect, one way or another. These reports are mostly based upon the PMA index employed by Massler, Schour and associates.[105-111] This method attempts to show the incidence of frank overt lesions (the advanced stage of the disease) but does not recognize or throw any light upon the early stage. The method is subject to unintentional and unavoidable bias [112, 113] and much variation between different examiners.

Most reports of surveys of the caries rate and evaluation of caries control measures are based upon the DMF method of Klein and Palmer.[114-116] Like the PMA this DMF method attempts to show the incidence of advanced stage lesions and does not recognize or throw any light upon early stage caries. It too is subject to as much as 100 per cent [117] examiner bias and variation. It is evident that such methods could be of only limited significance as to the prevalence and the relationship of caries and periodontoclasia, and the effect of control measures.

An impressive report by Russell [118] indicates that not only less periodontoclasia but less final loss of teeth was experienced by lifelong residents of Colorado Springs (2.5 ppm fluoride) than was found in a supposedly comparable group at Boulder, Colorado, with fluoride-free water. An example of contrasting report is that of Dale and McCauley [126] of chronic fluoride intoxication from fumes of hydrofluoric acid. The unexposed control group had an average of 27.4 teeth remaining; whereas those in the exposed group had only 23.3 teeth left, those exposed more than ten years only 21.6.

Greenwood published [119] an extensive review of fluoride intoxication up to 1940. There was then abundant evidence (proof) of the serious, irreversible, harmful, systemic effect of fluorine in excessive amounts, and in some not-so-excessive. A large volume of additional information relative to the subject has appeared since that time, mostly supporting the claim that 1 ppm is not harmful and assuming that any harmful effect could be recognized by the methods used.

Mottled enamel occurs in part of the population when there are only 2 or 3 ppm

of fluoride in the water and in almost all when the content is still higher. Long continued intake of increased amounts of fluorine from fluoridated water [120-138] or from contaminated air [120, 139, 140] causes, not only mottled enamel and dental hypoplasia, but also profound changes in the other calcified tissues of the body. These changes include osteosclerosis, thinning of the lamina, increased density, opacity to x-rays, narrowing of the marrow spaces, lack of normal sharpness of the bone outlines, osteophytic formations on various bones, synostosis of various joints, especially of the vertebral column, excessive calcification of tendons, fasciae, ligaments and ligamentous attachments, "bridging" between the vertebral bodies giving rise to stiffness of the back (the so-called poker back), etc. These striking conditions are usually recognizable only after thirty or thirty-five years of exposure but they continue to exist as long as the sufferer lives, and to increase if the exposure continues. Reduction of the bone-marrow spaces, thus impairing and reducing the blood-making tissues of the body not only produces anemia but it also reduces the ability to make back blood in anemia from other causes.

The fact that these severe harmful effects have resulted from 3 times as much, or perhaps 5 to 10 times as much, fluoride in the water as is added in artificial fluoridation leaves room for doubt as to the complete safety and harmlessness of that procedure.

There is much individual variation in susceptibility to the known effects of fluorides, whether it be the beneficial caries retardation in children or the known harmful effects, such as increased periodontoclasia activity, mottled enamel and the cumulative damage to the bones, tendons and ligaments of the body. Citizens, officials, and health authorities of the community have to decide whether to expose the entire population of all ages, and in all conditions of health and vitality, to such possibly harmful effects in order to secure the limited caries preventive effect of fluoridation of the communal water supply.

The public looks to the U. S. Public Health Service and the dental profession, more than to any other health agency or authority for guidance relative to dental health. As long as they continue to actively advocate and to recommend topical fluoride treatment it will be wanted by many people. Although dentists, after practical experience, may be doubtful of the results they have seen they still will be confronted with the public demand for fluoride applications, as long as the promotional publicity continues.

SUMMARY

Attention has been directed to four separate but somewhat related developments unfavorably influencing dental health, which have taken place during the first half of the present century. Some of the reasons for such influence have been presented.

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OFFICERS OF THE LOUISIANA STATE MEDICAL SOCIETY FOR THE COMING YEAR

The House of Delegates, acting for the Louisiana State Medical Society, has again discharged its duties most creditably and chosen officers for the State Society for the coming year, who are a credit to the organization and worthy of the dignity and responsibility of the profession.

Dr. H. Ashton Thomas becomes President after a period of many years in which he has rendered valuable services to the cause of organized medicine. He has been active in the affairs of the Orleans Parish Medical Society, has served as its President, and has been Councilor from the First District of Louisiana and President of the Council for many years. He brings to the office a wealth of experience and practical knowledge which result from such endeavors. It is a source of satisfaction to the membership that the leader of our organization in the year to come has the qualities which will ensure its stability and further progress.

The President elect, to take office a year hence, is Dr. Arthur Long of Baton Rouge. Dr. Long has earned the admiration and respect of his colleagues generally over the State from his efforts as a leader in the East Baton Rouge Medical Society, his work as Councilor from the Sixth District, and from his valued assistance to the Society during the time that our insurance difficulties were the source of acute concern.

Dr. Paul D. Abramson becomes immediate Past President, and as he relinquishes the affairs of office to Dr. Thomas, Dr. Abramson has with him the gratitude and appreciation of the entire membership for his many activities in our behalf during the year just concluded and many previous years. Dr. Abramson is to be congratulated upon his successful endeavors in many matters of importance, and particularly, for his strenuous efforts in fighting the Chiropractic Bill.

Dr. H. H. Hardy of Alexandria continues as a Vice President, in which capacity and as a leader of the Rapides Parish Medical Society he has earned esteem and confidence of the whole Society. His work with the matter of the medical aspects of the Louisiana Department of Public Welfare has brought credit to him and to the Society, and he will continue to be a valuable member of the Executive Committee.

Other Vice Presidents are Dr. C. J. Brown and Dr. J. O. Weilbaecher, both of New Orleans. Dr. Brown and Dr. Weilbaecher have been President of the Or-

leans Parish Medical Society, have worked in the interests of the Society as chairmen of committees, and in many areas where activities of organized medicine meet those of the public. Dr. Brown has been chairman of the State Congressional Committee for some years, and Dr. Weilbaecher has recently been general Chairman of Arrangements for the highly successful meeting of the State Society in New Orleans during the past month.

Dr. C. Grenes Cole was re-elected by acclamation for another term as Secretary-Treasurer. The Society is most fortunate to have services over a successive period of years from Dr. Cole, whose experience and judgment have been of incalculable aid to our organization in times of stress and crisis. Dr. Cole is one of the few in our Society whose efforts have continued over many years in its behalf and who has contributed to making Louisiana by comparison what amounts to a medical paradise so far as the practice of medicine is concerned. It is a source of great satisfaction that his stable influence will continue.

The membership of the Council is changed slightly by the addition of Dr. Felix Planche, who will represent the First Congressional District, and Dr. Jack Bevin, who will represent the Sixth. Dr. Planche has served the Orleans Parish Medical Society long and well, as an officer, committee member, as a member of the Charity Hospital Board of Administrators, and will be a stable adviser in the affairs of the Council. Dr. Jack Bevin of Baton Rouge has served the East Baton Rouge Medical Society in many capacities, and brings to the Council a wealth of experience gained in this active organization.

The Chairman and Vice Chairman of the House of Delegates, Dr. W. Robyn Hardy of New Orleans, and Dr. O. B. Owens of Alexandria, continue in their respective positions. To these gentlemen the Society as a whole and the House of Delegates in particular owe a debt of gratitude for a job well performed in the years past, and our fellow members acknowledge cheerfully that without such direction and decision the affairs of the House would languish, and what is accomplished in two days might otherwise bear heavily on the time and patience of the membership.

The Executive Committee thus constituted is a stable and experienced group. The Society is to be congratulated on the selection of each member.

ORGANIZATION SECTION

The Executive Committee dedicates this section to the members of the Louisiana State Medical Society, feeling that a proper discussion of salient issues will contribute to the understanding and fortification of our Society.

An informed profession should be a wise one.

HOUSE OF DELEGATES
MAY 6-8, 1957

Minutes

Minutes of 1956 meeting of *House of Delegates* approved as recorded.

Minutes of meetings of *Executive Committee* since 1956 meeting of House of Delegates approved as recorded.

Special Order

Introduction of *new members of the House of Delegates.*

Recognition of *guests* and *fraternal delegates.*

Roll of members who died since 1956 meeting read.

Talk by Mr. R. E. LeCorgne, *attorney* representing State Society and Louisiana State Board of Medical Examiners.

Greetings from *Woman's Auxiliary, AMA, SMA and LSMS. Report* of Auxiliary of *LSMS* accepted.

Acceptance with thanks of *communication and check for $10,000.00* from the *Continental Service Life & Health Insurance Company.*

Expression of *appreciation* to *Dr. Matas* in re: Publication of *"History of Medicine* in Louisiana."

Reports without Recommendations

Following reports accepted as printed:—Secretary-Treasurer, Chairman of Council, Councilors: First District, Second District, Third District,

Fourth District, Fifth District, Sixth District, Seventh District, Eighth District; Committees: Accreditation of Hospitals, Advisory to Selective Service, Aid to Indigent Members, Alcoholism, Blood Banks, Budget and Finance, Child Health, Chronic Diseases, Committees, Congressional Matters, Diabetes, Domicile, Gamma Globulin and Salk Vaccine, Geriatrics, History of Medicine in Louisiana, Hospitals, Industrial Health, Lectures for Colored Physicians, Liaison with Louisiana State Nurses' Association, Louisiana Organizations for State Legislation, Maternal Welfare, Mediation, Medical and Hospital Service in re Insurance Contracts, Medical Defense, Medical Education, Medical Indigency, Medical Testimony, National Emergency Medical Service, Neuropsychiatric Service at Charity Hospital, Public Health of the State of Louisiana, Scientific Work, State Hospital Policies, Woman's Auxiliary.

Supplemental Report of *Committee on Gamma Globulin and Salk Vaccine*, without recommendations, accepted.

Supplemental Report of *Committee on History of Medicine in Louisiana* in which the Chairman stated copies of both volumes are available through J. A. Majors Co., accepted.

Reports with Recommendations

President: Referred to Committee on President's Report and report of this Committee approving following recommendations adopted: 1. Constant surveillance and evaluation of the Medicare Program. 2. Renewed and invigorated efforts of public and professional education regarding the evils of chiropractic. 3. Increased leadership in planning and disseminating, to the medical profession and allied fields, a knowledge for management of casualties in major disaster. 4. Efforts to further the sale of Matas' "History of the State Medical Society" to all of the members.

Past Presidents' Advisory Council: Four resolutions (printed under "resolutions"): 1. TV and Radio advertising: Approved. 2. Opposition to hospital insurance blanks: Approved. 3. Medical Practice Act: Approved. 4. Medical Case Histories: Referred to Council on Medical Service and Public Relations.

Committee on American Medical Education Foundation: 1. Additional efforts be made to obtain contributions to AMEF from members of the Society; initial appeal to be made by mail during July or August and that two or three follow-up appeals be made later in the year to members of the Society who have not yet contributed: Approved. 2. Sufficient funds be made available in order to carry out this type of mail campaign: Approved. 3. Officers and Councilors of the State Society and officers of component societies set a good example by contributing early to AMEF: Approved.

Committee on Arrangements: 1. Section 1 of Chapter XI of the By-Laws be amended to state . . . "1.75 per capita be set aside as an annual entertainment fund.": Withdrawn.

Committee on Cancer: 1. The State Society sanction and give its support to the further development of tumor registries in hospitals throughout Louisiana: Approved. 2. Members of the State Society be urged, through editorials or other communication in the Journal of the Louisiana State Medical Society, to make fuller use of exfoliative cytologic facilities presently available in the state: Approved: 3. Members of the State Society be urged to be alert for instances of cancer quackery in Louisiana and that they report to the Cancer Commission any information which they can obtain in this regard: Approved. 4. Amount of $500.00 be budgeted for use, if necessary, by the Cancer Commission in carrying out its various functions during the forthcoming year: Approved.

Committee on Federal Medical Services: 1. Members of the State Society be urged to cooperate in the successful operation of Medicare: Approved. 2. House of Delegates repeat endorsement of the AMA long-range position in regard to VA medical care being limited to service-connected illnesses: Approved. 3. Copies of "The Trojan Horse" by Louis M. Orr, be placed in the hands of every member of the Society for distribution to friends and patients: Approved.

Committee on Journal: 1. Amend Section 4 of Chapter IX of the By-Laws to state ". . . The State Society shall pay The Journal one dollar and a half ($1.50) per year per member in consideration of which each member shall receive the Journal for one (1) year . . . ": Approved. 2. Dr. C. M. Horton be continued as a member of the Committee on Journal: Approved.

Committee on Mental Health: 1. The Committee on Mental Health be made a standing committee of the Louisiana State Medical Society: Rejected. 2. The Committee on Mental Health be recognized by the State Society as the body for liaison with the Governor and State Department of Hospitals concerning matters of mental health: Rejected. 3. Recommendation be made to appropriate authorities that a fully qualified physician be secured to administer the state mental health program: Rejected.

Committee on Public Policy and Legislation: 1. State Society urge component societies to cooperate with Louisiana State Board of Medical Examiners in bringing all illegal practitioners of medicine to the immediate attention of District Attorneys in areas where they are practicing; if component societies will not cooperate, State Board urged to take necessary steps to have these individuals enjoined from practicing medicine: Approved. 2. Committee on Public Policy and Legislation remain active and secure active participation of component societies in continuing good relations with Legislators: Approved. 3. Public Relations campaign instituted: Approved. Sup-

plemental Report approved. Report of Legislative Consultant accepted. Special thanks expressed to Legislative Consultant for work done in behalf of State Society.

Committee on Resolutions: 1. It is recommended that a copy of these resolutions be sent to each person and organization mentioned and also published in The Journal of the Louisiana State Medical Society: Approved.

Committee on Rural and Urban Health: 1. Greater interest in rural health by all doctors in the state: Approved. 2. The sum of $1000.00 be appropriated for activities of the Committee on Rural and Urban Health: $800.00 approved by Budget and Finance Committee. Supplemental Report by Chairman accepted and discussed; suggested publication in re insecticides.

Council on Medical Service and Public Relations: Report accepted. Supplemental report by Public Relations counselor accepted after discussion. Special thanks expressed to Public Relations counselors for work done in behalf of State Society.

Resolutions

Change in Commitment Law: Referred to Committee on Public Policy and Legislation. "BE IT RESOLVED that the House of Delegates approves of a revision in the mental health act with reference to commitment procedures which would allow for a non-judicial commitment, yet would preserve the immunity of the Coroner in carrying out any administrative acts attached to the functions of his office as required by the revision of this law. The House of Delegates authorizes the Committee on Public Policy and Legislation to work with the New Orleans Society of Neurology and Psychiatry in writing this bill and if approved by the Committee, that it will be submitted for consideration at the State Legislative Session of 1958."

Television and Radio Advertising: Approved. "WHEREAS, the Television and Radio are repeatedly expounding the cause of patent medicine firms and their products over the TV and Radio Stations, and recommending these respective drugs to the public as cure-alls, thereby creating false claims and hopes for the general public and,

"WHEREAS, these misrepresentations cause an irreparable harm to the general population in their misguided usage of such drugs recommended and,

"WHEREAS, each individual is unto himself a distinct and separate problem, subject to susceptibilities and idiosyncrasies, oftentimes making these drugs contra-indicated,

"THEREFORE BE IT RESOLVED that the House of Delegates recommend that our Delegates to the AMA House of Delegates exert every effort to have the AMA House of Delegates give this matter serious consideration and obtain some relief from such dangerous advertising.

"BE IT FURTHER RESOLVED that a copy of this resolution be sent to all other State Societies, requesting their support in passing such a resolution, thereby securing some relief from such harmful practices."

Opposition in re Hospital Blanks: Approved. "WHEREAS, the Louisiana State Medical Society has adopted and approved simplified uniform claim forms insurance blanks, submitted to us by the Special Committee on Prepayment Insurance under the Council on Medical Service of the American Medical Association, and

"WHEREAS, the Louisiana Hospital Association, with the cooperation of the Blue Cross upon its own initiative at their recent convention and without consultation with or knowledge of the medical profession, and in spite of opposition of the commercial insurance companies, created and adopted hospital insurance forms marked HAP-4 or C-652 and IHF-1, and

"WHEREAS, these forms not only ignore the physicians completely, but wholly ignore the fact that the insurance laws of the State of Louisiana set out that claims are to be submitted on forms furnished by the respective company by whom the policy was issued. Nowhere on these forms is there a place for the physician to sign, nor is there a place on said blanks where an assignment of benefits can be made to the physician, and

"WHEREAS, it would, in all cases, cause a delay in the submission of claims for the doctor, and

"WHEREAS, the Louisiana Hospital Association, in cooperation with the Blue Cross, has made this final decision attempting to regulate the physicians as well as all of the insurance companies operating within the State of Louisiana without even consulting the insurance companies or physicians in any respect, and

"WHEREAS, without a statement from the physician giving the diagnosis, details of the treatment and other pertinent information, would most assuredly jeopardize the doctor's interest, and in the final analysis, would segregate the doctors completely from any connection with the patient being hospitalized and would prevent the patient from assigning benefits to the physician, at the same time and on the same form, the assignment is made to the hospital. Especially does this work a hardship on our doctors in the Medicare Program where the Continental Service Life and Health Insurance Company is the fiscal administrator for the doctors, as well as for all hospitals, and

"WHEREAS, the Louisiana Hospital Association has taken an arbitrary position in this matter, with no consideration for other insurance companies, the doctors and patients,

"THEREFORE, BE IT RESOLVED that the House of Delegates go on record as opposing the action of the Louisiana Hospital Association in

the use of these forms, which only protect the hospitals and not the doctor.

"BE IT FURTHER RESOLVED that a copy of this resolution be sent to the Louisiana Hospital Association, requesting that they discontinue the use of these forms which are detrimental to the best interest of the physicians.

"BE IT FURTHER RESOLVED, that the Hospitals have no authority to give out information to the patient, family, or the public regarding diagnosis or treatment of a patient without the consent of the doctor, which is being done on the hospital forms just adopted by the Louisiana Hospital Association.

"BE IT FURTHER RESOLVED that this matter be referred to our Hospital Committee for investigation, and it is requested that a report of their findings be submitted to the Executive Committee at their next meeting to be held on May 25."

Medical Practice Act: Approved. "WHEREAS, there have been attempts thru legislation to lower the standards of medical education requirements for licensure to practice medicine and surgery in the State of Louisiana by allowing graduates of foreign medical schools to qualify, and

"WHEREAS, it is a well known fact that foreign medical schools are not of the high standards of American and Canadian medical schools, and

"WHEREAS, such legislation would tend to lower the high standards of medical practice that now exist in this State, and

"WHEREAS, the citizens of this State are entitled to the best medical care, and

"WHEREAS, the medical profession desires this high standard of medical care to continue, and

"WHEREAS, there are now over 3300 licensed physicians in the State, satisfactorily sufficient to attend the medical needs of the people of this State, and

"WHEREAS, the present Medical Practice Act provides for the graduate medical training of graduates of foreign medical schools in educational programs, sponsored by the two medical schools of the State and approved by the State Board of Medical Examiners, so

"BE IT RESOLVED, that this body go on record as being opposed to any changes in the Medical Practice Act of this State regarding graduates of foreign medical schools."

Case Histories: Referred to the Council on Medical Service and Public Relations. "ON MOTION of Dr. Max Mayo Green, and on his suggestion that complete medical records characterize the good physician and hospital and that the keeping of good medical records is in the best interest of the patient and also to the best interest of both the physician and hospital, as such records are essential for the benefit of the patient, as well as for statistical and teaching purposes and provide the bulwark of defense whenever a claim for negligence or malpractice is made against the attending physician or hospital; and on further suggestion that it is notorious that physicians in the State of Louisiana have been extremely lax in the keeping of full, complete and good records both in their offices and in the hospitals,

"BE IT RESOLVED that the subject matter of this motion and resolution be called to the attention of the House of Delegates of the Louisiana State Medical Society at the forthcoming annual meeting.

"In particular, attention should be directed to the fact that complete, full and good records should include the medical history, a detailed report of the physical examination, including the diagnosis, copies of all laboratory reports, all instructions and treatment given the patient, a progress report, and any special reports, such as that of a consultant, etc. Especially should be included any failure or refusal of the patient to follow instructions.

"If the patient is hospitalized, the medical record should consist of history, the physical examination, copies of reports of last examination and these should justify a diagnosis or at least a working diagnosis. If a diagnosis cannot be made at this time, it should be so stated on the chart, and generally in such circumstances, consultation should be had. The consultants' findings and recommendations, signed by him, should be attached to the hospital chart. These entries, united with the physician's order sheet and progress sheet, form the foundation of a good record. Indicated consent and other special forms should be attached. The progress sheet should include the patient's complaints and the physician's objective findings at the time the entry is made. It is important that a progress note be made at time of discharge and this note should be sufficiently comprehensive to describe fully the patient's condition at that time.

"It is important that every nurse in attendance upon a patient be required to note on the chart of a patient, the patient's complaints and her own observation during each tour of duty on the case, and the doctor should see that this is complied with.

"All orders should be signed by the attending physician and orders given over the telephone signed at the next visit to the hospital. The hours as well as the date should be entered on every order placed on the hospital chart, which should also be done with respect to every visit of the attending physician to see the patient.

"If the case is an emergency, the surgeon should be required to sign a statement, to be attached to the record, to the effect that he is aware of the fact that there is no blood count, urinalysis, history or other records in the record, and that he is proceeding with surgery only for the reason

that the case is an emergency and not to proceed might endanger life."

H.R. 9 and H.R. 10—Jenkins-Keogh Bill: Referred to membership and approved at General Session. "WHEREAS, House Resolution 9 and 10 (Jenkins-Keogh) is to encourage the establishment of voluntary pension plans by the self-employed, and

"WHEREAS, this would be accomplished by affording such individuals a tax deferment on a limited portion of their income set aside for their retirement, and

"WHEREAS, under existing law such a tax deferment is afforded to employed persons whose employers have established a so-called employee pension plan, meeting certain statutory requirements, and

"WHEREAS, since self-employed individuals cannot be their own employers they cannot qualify under existing legislation:

"NOW, THEREFORE, BE IT RESOLVED, that the Louisiana State Medical Society in convention strongly urges the passage of this bill, and

"BE IT FURTHER RESOLVED, that the Congressmen, representing the various Congressional Districts of Louisiana, do all in their power to help pass this bill, and

"BE IT FURTHER RESOLVED, that a copy of this resolution be forwarded to each Louisiana Congressman."

AMENDMENTS APPROVED

Constitution

Article IX, Section 2. (Associate Members). Delete "when endorsed by two active members in good standing" and insert "when approved by the Executive Committee in re physicians in government service.

By-Laws

Chapter II, Section 3. (Installation Meeting). Delete "left to the discretion of the Chairman of the Committee on Arrangements" and insert "left to the discretion of the President and Secretary-Treasurer". Delete "At this meeting the reports of the retiring president and the address of the incoming president, and the annual oration may be rendered".

Chapter II, Section 3. (Scientific Meetings). Delete "No address or paper before the Society, except those of the President and orators, shall occupy more than fifteen minutes in its delivery; and no member shall offer discussion longer than five minutes, nor more than once on any subject."

Chapter III. (Installation of President). Delete "Left to the discretion of the Chairman of the Committee on Arrangements" and insert "left to the discretion of the President and the Secretary-Treasurer."

Chapter X, Section 5. Medical Defense. Add "Copy of complaint filed" to data to be furnished by doctor.

Chapter IX, Section 4. "The State Society shall pay the Journal one dollar and fifty cents ($1.50) per year per member in consideration of which each member shall receive the Journal for one (1) year. . . . "

Chapter IX, Section 11. Committee on Committees. The Committee on Committees shall consist of three members to be elected by the House of Delegates for a term of one year. The duties of this Committee shall be to make recommendation concerning appointment of new special committees or discontinuance of special committees and to specify duties of such committees, pending approval of Executive Committee or House of Delegates and to review and consider all other matters referred to it.

Chapter XI, Section 2. Delete. "Component societies having a classification of Intern Membership shall pay dues to the State Society for each member in the amount of one dollar ($1.00) per annum."

Election of Officers, Delegates and Alternates to AMA and Committees

President-elect — Dr. Arthur D. Long, Baton Rouge

First Vice-President — Dr. C. J. Brown, New Orleans

Second Vice-President — Dr. H. H. Hardy, Jr., Alexandria

Third Vice-President — Dr. J. O. Weilbaecher, Jr., New Orleans

Secretary-Treasurer—Dr. C. Grenes Cole, New Orleans

Chairman of House of Delegates—Dr. W. Robyn Hardy, New Orleans

Vice-Chairman of House of Delegates—Dr. O. B. Owens, Alexandria

Councilor, First District — Dr. Felix Planche, New Orleans

Councilor, Third District — Dr. Guy R. Jones, Lockport

Councilor, Sixth District—Dr. J. L. Beven, Baton Rouge

Councilor, Seventh District—Dr. J. Y. Garber, Lake Charles

Councilor, Eighth District—Dr. R. E. C. Miller, Alexandria

Delegate to AMA (1958 and 1959)—Dr. J. Q. Graves, Monroe

Alternate to Delegate to AMA (1958 and 1959) —Dr. A. A. Herold, Shreveport

Committee on Public Policy and Legislation—Dr. Joseph A. Sabatier, Jr., Baton Rouge, Chairman; Dr. E. L. Zander, New Orleans; Dr. J. E. Clayton, Norco; Dr. Leo Kerne, Thibodaux; Dr. C. E. Boyd, Shreveport; Dr. Henson S. Coon, Monroe; Dr. H. W. Richmond, Oakdale; Dr. F. P. Bordelon, Marksville.

Committee on Committees—Dr. E. L. Leckert, New Orleans, Chairman; Dr. J. Kelly Stone, New Orleans; Dr. Wm. E. Barker, Jr., Plaquemine.

Committee on Journal—Dr. C. M. Horton, Franklin.

Committee on Medical Defense—Dr. C. B. Erickson, Shreveport, Chairman.

Committee on Scientific Work—Dr. M. D. Hargrove, Shreveport; Dr. Sam Hobson, New Orleans.

Future Annual Meetings

Dates and places:—1958-Shreveport, May 5, 6, 7, approved; 1959-New Orleans, May 4, 5, 6; 1960-Baton Rouge or Gulf Coast; 1961-New Orleans; 1962-invitation accepted to hold meeting in Alexandria.

COMMITTEE ON MEDICAL DEFENSE

It is a pleasure to report that the past year was one of relative inactivity for this Committee. There were only three requests for assistance in defense of an instituted suit, the lowest in years.

Two cases instituted last year were settled by compromise before coming to trial. All other cases not specifically covered above are still pending.

C. B. ERICKSON, M. D., Chairman

REPORT OF COMMITTEE ON RESOLUTIONS

The members and guests who have participated in the 1957 Annual Meeting held in New Orleans, May 6-8, are deeply appreciative of the interesting, instructive, and enjoyable activities furnished, and feel that special thanks should be extended the following individuals and groups who have made this possible; therefore, BE IT RESOLVED that the Louisiana State Medical Society express appreciation for assistance by the following:

Dr. George H. Hauser, President, and Dr. J. O. Weilbaecher, Jr., Chairman, and personnel of Committee on Arrangements, and all members of the Orleans Parish Medical Society, hosts to the meeting.

Rev. Vincent D. Smith who offered the invocation at the official opening meeting of the Society.

Mr. Glenn P. Clasen, President of the New Orleans City Council, for his cordial welcome to the city.

Dr. Dwight H. Murray, President of the American Medical Association, for the annual oration presented at the opening meeting and also for his informative address before the House of Delegates.

Dr. J. P. Culpepper, President of the Southern Medical Association, for his talk before the House of Delegates.

Fraternal Delegates, Dr. G. S. Daly and Dr. W. B. Norman for greetings from the Mississippi and Texas State Medical Associations.

Dr. Charles L. Brown for welcome on behalf of the New Orleans Graduate Medical Assembly.

The following out-of-state guests who participated in the Scientific Program:

Dr. N. Frederick Hicken, Salt Lake City, Utah
Dr. Henry D. Lederer, Cincinnati, Ohio
Dr. Frank B. McGlone, Denver, Colorado
Dr. Harry Schwachman, Boston, Massachusetts
Dr. George V. Taplin, Los Angeles, California
Dr. Philip Thorek, Chicago, Illinois
Dr. Harry M. Weber, Rochester, Minnesota

The New Orleans Chamber of Commerce for cooperation in connection with many phases of the meeting, and partciularly for typewriters for use at the Registration Desk.

The Times-Picayune, New Orleans States and New Orleans Item and other newspapers throughout the State for publicity prior to and during the time of the meeting.

Radio and TV stations throughout the state, and particularly WDSU-TV for excellent cooperation in broadcasting specific phases of the meeting.

The Hotel Roosevelt, Headquarters for the meeting, for excellent services rendered members attending the meeting, as well as facilities for various sessions in connection with the meeting; also other hotels and motels in New Orleans for accommodations furnished.

Mr. Paul J. Perret and Mr. Paul R. Kalman, Jr., who have rendered a most valuable service prior to and during the meeting as Public Relations Counselors and have cooperated with Dr. Rafael C. Sanchez, Publicity Chairman, in securing publicity for the meeting; also for report presented to House of Delegates.

Mr. Percy J. Landry, Jr., Legislative Consultant, who has continued to be most helpful to the medical profession for his informative talk before the House of Delegates.

Special thanks to the Continental Service Life and Health Insurance Company of Baton Rouge for communication with enclosed contribution of $10,000.00 check.

Smith, Kline & French Laboratories for excellent five-state telecast presented during the meeting.

Scientific exhibitors whose exhibits add much interest to the meeting.

Pharmaceutical, surgical and other companies for their continued cooperation in having technical exhibits.

All companies which purchased space for advertising in the Program.

The Metairie Country Club for facilities furnished for the golf tournament.

Dr. Edwin H. Lawson, Secretary of the Louisiana State Board of Medical Examiners, for his report submitted to House of Delegates.

Officers and members of the Woman's Auxiliary who prepared an interesting program for members of the auxiliary.

Dr. Paul D. Abramson, who has served so capably during the past year as President of this organization.

Dr. W. Robyn Hardy, very capable and efficient Chairman of the House of Delegates.

Dr. C. Grenes Cole, Secretary-Treasurer who has continued to render invaluable counsel and service to the organization.

Miss A. M. Shoemaker, our highly competent Assistant Secretary-Treasurer, and the entire secretarial staff for their efficient handling of the details prior to and during the time of the meeting.

Recommendation

It is recommended that a copy of these resolutions be sent to each person and organization mentioned and also published in The Journal of the Louisiana State Medical Society.

R. E. GILLASPIE, M. D., Member
RALPH H. RIGGS, M. D., Member
J. E. CLAYTON, M. D., Chairman

MEDICAL NEWS SECTION

CALENDAR

PARISH AND DISTRICT MEDICAL SOCIETY MEETINGS

Society	Date	Place
Calcasieu	Fourth Tuesday every other month	Lake Charles
East Baton Rouge	Second Tuesday of every month	Baton Rouge
Morehouse	Third Tuesday of every month	Bastrop
Natchitoches	Second Tuesday of every month	
Orleans	Second Monday of every month	New Orleans
Ouachita	First Thursday of every month	Monroe
Rapides	First Monday of every month	Alexandria
Sabine	First Wednesday of every month	
Tangipahoa	Second and fourth Thursdays of every month	Indepencence
Second District	Third Thursday of every month	
Shreveport	First Tuesday of every month	Shreveport
Vernon	First Thursday of every month	

EDUCATORS TO DISCUSS DOCTOR TRAINING

Urgent questions in the training of young doctors now and in the future, and in helping practicing physicians keep up to date was discussed by medical educators in Chicago Feb. 9-11.

The 53rd annual Congress on Medical Education and Licensure was sponsored by the American Medical Association's Council on Medical Education, with the cooperation of the Advisory Board for Medical Specialties and the Federation of State Medical Boards of the United States.

Because there has been much concern over the training of doctors for general practice, the Sunday session concentrated on current education and on ideas about just what can be accomplished during four years of undergraduate medical school.

Dr. Edward L. Turner, secretary of the council, said the emphasis was on the immediate problem—1957 and the future—rather than discussion of what has been done so far.

INJECTIONS USED TO TREAT LOW BACK PAIN

Much low back pain, sciatica and referred pain in the lower extremities can now be eliminated by a very simple treatment: injections of vegetable oil and an anesthetic.

Dr. George S. Hackett, Canton, Ohio, developed the treatment and has used it for the last 14 years. He said in the Jan. 19 Journal of the American Medical Association that 82 per cent of 1,178 patients treated with the injections "consider themselves cured."

Dr. Hackett's injection treatment causes new cells to be produced in bone and fiber tissue at joints where the pain originates. It is based on his belief that relaxation of the ligaments which "weld" these joints is the cause of more low back pain and referred pain than any other factor.

When a ligament is relaxed, normal tension or movement stretches the fibers. This overstimulates the sensory nerves because they do not stretch. Thus pain is produced either at the site (called "trigger-point pain") or in some other part of the body (referred pain).

POTENT COUGH SUPPRESSANT

The potent cough suppressant formerly known as narcotine, has been given a new generic name which removes the connotation that the antitussive is a dangerous narcotic. The new term approved by the American Medical Association is "noscapine". The change also has the

blessings of H. J. Anslinger, Commissioner of the U. S. Bureau of Narcotics, and Nathan B. Eddy, Secretary of The Committee on Drug Addiction, National Research Council of the Institute of Health.

HEARING AID MODIFIED FOR USE IN SURGERY

The transistor hearing aid has assumed a new, and sometimes lifesaving, task: monitoring the breathing of an unconscious surgical patient.

A Baltimore dentist and a physician described in the Jan. 26 Journal of the American Medical Association how they adapted the hearing aid to its new use. They call their apparatus the Breathophone.

It consists of a hearing-aid transistor amplifier, a hearing-aid earphone that does not have to be worn in the ear, and a microphone that is removed from the hearing aid and placed within the anasthesia breathing apparatus.

Sylvan M. Shane, D.D.S., and Dr. Harry Ashman of the department of anesthesiology, Lutheran Hospital of Maryland, said that amplifying the breathing sounds is the most accurate way of checking an unconscious patient's respiration. If breath sounds are not audible, the only other way of checking is to watch the slight rise and fall of a rubber breathing bag.

PHYSICIAN CALLS "CULT OF MANLINESS" SUICIDAL

The medical director of a large industrial firm recently blamed the "suicidal cult of manliness" for the "rat race" in which many American men find themselves.

Writing in the American Medical Association's January Today's Health, Dr. Lemuel C. McGee, Wilmington, Del., said the average lifetime of men is about four years less than that of women, mainly because of the stress under which men live.

The use of a "little common sense" could eliminate many of the tensions and stresses, providing a healthier and longer life for most people, he said.

"The American male has been indoctrinated with the philosophy that he must live, work and play at a dizzy pace, that he can and should wade through all emotional and physical situations without flinching and without reflection," Dr. McGee said.

Every man and boy must live within his own resources of physical and mental strength, but many fail to do so because of the cult of manliness. They drive themselves to the point of exhaustion in work, play, social activities or a combination of these. This could be avoided by reasonable attention to the use of spare time and intelligent effort at recreation, he said.

PINE-SOL RECOMMENDED FOR HOSPITAL AND HOME USE

General Practitioners, who are often asked to recommend an excellent cleaner, disinfectant and deodorizer for all-purpose use on hospital walls, floors, in sick rooms, and for washing baby garments and baby equipment, may be interested to learn about Pine-Sol—an effective new product that successfully incorporates these three important ingredients.

Made by the Milner Products Company of Jackson, Mississippi, Pine-Sol is composed of 78 per cent pine oil, soap isopropyl alcohol, water and optical bleach. It has a phenol coefficient of five which allows Pine-Sol to be five times as effective as pure phenol for killing B. Typhosus germs.

Recent studies of pine oil disinfectants, which have long been discussed by such agencies as the U. S. Department of Agriculture and the U. S. Public Health Service in various publications, have proven that pine oil disinfectants, such as Pine-Sol, effectively combat gram negative organisms typified by typhoid and coliform.

AID FOR MEDICAL STUDENTS

Twenty-four Americans prominent in the fields of medicine, education, and industry have been named as Honorary Trustees of The Foundation of the Student American Medical Association, according to Russell F. Staudacher, Chicago, Foundation Secretary.

Founded in 1955 as an irrevocable trust to give financial aid to growing numbers of medical students in their last three years of training, Foundation officials hope that the availability of funds for loans will also encourage qualified individuals to enter medical training,

The initial appeal for support of the goals of the Foundation is being directed to all medical organizations, individual physicians, pharmaceutical manufacturers, and scores of philanthropic Foundations with an evidenced interest in medical education.

PROFESSIONAL NURSING SCHOOL ADMISSIONS DECLINE IN 1956

The number of new students entering schools of professional nursing dropped last year, while admissions to schools of practical nursing remained steady, it was announced today by John H. Hayes, chairman, Committee on Careers, National League for Nursing, New York.

Schools of professional nursing in the United States and territories last year enrolled 45,839 new students, as against 46,498 the previous year. This was the first year since 1952 that admissions to these schools declined and thus

failed to keep pace with the steady growth of the college age population. During this period professional nursing schools annually have attracted about 4% of the girls in this population age group and were expected to enroll 46,700 new students last year.

RESEARCH ON CEREBRAL VASCULAR DISEASE

The launching of the first, nationwide cooperative research attack against cerebral vascular disease was announced recently by Surgeon General Leroy E. Burney of the Public Health Service.

This disease, commonly known as "stroke," is the Nation's third-ranking killer.

Ten medical research centers in 9 states have already joined in the program, and it is expected that 35 to 40 institutions will ultimately participate, Dr. Burney said.

The program, which is expected to run 5 or six years, is under the auspices of the National Institute of Neurological Diseases and Blindness of the Public Health Service's National Institutes of Health.

Dr. Pearce Btiley, Institute Director, said it has been estimated that as many as 1,800,000 living Americans have suffered cerebral (brain) strokes at one time or another. Deaths due to such strokes are estimated at 175,000 annually.

NATION'S FAMILY DOCTORS SUPPORT BELEAGUERED BRITISH COLLEAGUES

American family doctors have lined up solidly behind their colleagues across the sea. British physicians, caught between spiraling costs and the Ministry of Health's refusal to grant a promised salary increase, are currently threatening to resign from the National Health Service.

Pointing out that the British medical care plan has failed miserably and put medicine on a mass production basis, the American Academy of General Practice recently urged British family doctors and specialists to resign from the NHS. The statement, issued at the Kansas City headquarters, came from Dr. Floyd C. Bratt, Rochester, N. Y., chairman of the Academy's Commission on Public Policy.

In 1951, the NHS arbitrarily decided that all family doctors should earn the equivalent of $6,200 a year. Since then, the cost of labor has risen 35 per cent and the doctors want a more modest 24 per cent increase. They have been offered a token 5 per cent.

Reports that British physicians are planning to strike are misleading, Dr. Bratt pointed out. The doctors do not plan to strike. Instead, they simply plan to resign from the NHS. This would mean a return to fee-for-service care. Instead of billing the government, doctors would bill each patient.

Dr. Bratt added that British physicians would not have been caught in the socialized medicine trap if they had built a strong medical care system based on general practice.

SCHERING RELEASES ARTHRITIS FILM

A new 16 mm. color motion picture on the uses of steroids in the treatment of rheumatoid arthritis has been released for showing to professional groups by the research division of Schering Corporation.

The film reviews the chemistry, physiology, and clinical application of the new "Meti" steroid hormones in rheumatoid arthritis and other collagen diseases. It presents the most commonly accepted theories of adrenal corticosteroid therapy and reflects the current knowledge of the subject.

WOMAN'S AUXILIARY TO THE LOUISIANA STATE MEDICAL SOCIETY

The Woman's Auxiliary to the Orleans Parish Medical Society entertained at the Orleans Club at 2:30 Wednesday afternoon, May 8th with a Tea and style show of glamorous summer frocks and swim togs from Maison Blanche.

Mrs. Boni J. DeLaureal, the newly installed president of the Woman's Auxiliary to the Louisiana State Medical Society, was guest of honor. Other guests were members of the Woman's Auxiliary of the State Society.

Mrs. Abe Golden, President of the Woman's Auxiliary to the Orleans Parish Medical Society introduced and welcomed the distinguished guests: Mrs. Robert Flanders, Fair Hills, Mass., President, Woman's Auxiliary to the American Medical Association; Mrs. Thomas E. Strain of Shreveport, La. representing President, Woman's Auxiliary to the Southern Medical Association; Mrs. Boni J. DeLaureal, President, Woman's Auxiliary to the Louisiana State Medical Society; Mrs. W. A. K. Seale, immediate past President, Woman's Auxiliary to the Louisiana State Medical Society; Mrs. Eugene H. Countiss, incoming President, Woman's Auxiliary Orleans Parish Medical Society; Mrs. Albert Habeeb, President Elect, Orleans Parish Auxiliary; Mrs. Ashton Thomas, wife of Dr. Thomas, President of Louisiana State Medical Society; Mrs. George H. Hauser, wife of Dr. Hauser, President of Orleans Parish Medical Society and Mrs. J. O. Weil-

baecher, Jr.

City Councilman James Fitzmorris, Jr. welcomed the guests to the City of New Orleans and presented keys to the City to Mrs. Flanders, Mrs. Strain, Mrs. Seale and a scroll of merit to Mrs. Abe Golden for a job well done.

Mrs. Jules Myron Davidson, a past president of the Woman's Auxiliary to the Louisiana State Medical Society, presided at the installation of the new officers of the Woman's Auxiliary to the Orleans Parish Medical Society. The following officers were installed:—Mrs. Eugene H. Countiss, President; Mrs. Albert Habeeb, President-Elect; Mrs. Robert C. Kelleher, 1st Vice President; Mrs. John J. Archinard, 2nd Vice President; Mrs. William C. Rivenbark, 3rd Vice President; Mrs. George H. Hauser, 4th Vice President; Mrs. William J. Rein, Recording Secretary; Mrs. Philip P. LaBruyere, Jr., Treasurer; Mrs. C. Barrett Kennedy, Corresponding Secretary; Mrs. Monte Meyer, Parliamentarian. Mrs. Abe Golden Ex-Officio.

Mrs. Countiss gave a few remarks of acceptance and read the names of the members of her Board:—

Archives, Mrs. Rufus W. Alldredge.
Budget, Mrs. Philip P. LaBruyere, Jr.
Samples and Clothes Collection, Mrs. David Bradley.
Commemoration, Mrs. Frank S. Oser, Jr.
Contact, Mrs. Boni J. DeLaureal.
Convention—Grad. Medical Assembly, Mrs. Albert F. Habeeb.
Courtesy, Mrs. Charles B. Odom.
Doctor's Day, Mrs. George F. Sustendal.
Essay Contest, Mrs. Nicholas Chetta.
Health Chairman, Mrs. Robert C. Kelleher.
Historian, Mrs. John J. Archinard.
Hostesses, Mrs. Fred O. Brumfield.
Legislation, Mrs. Abe Golden.
Membership, Mrs. Daniel W. Beacham.
Mental Health, Mrs. Martin O. Miller.
Notifications, Mrs. George Feldner.
Nurse Recruitment, Mrs. Spencer B. McNair.
Periodic Health, Mrs. Ralph J. McDonough.
Printing Supplies, Mrs. William C. Rivenbark.
Program, Mrs. Charles Farris, Jr.
Publications, Mrs. Robin Hardy.
Publicity, Mrs. Branch J. Aymond.
Public Relations, Mrs. Edwin A. Socola.
Registration, Mrs. Carl N. Wahl.
Telephone, Mrs. L. Sidney Charbonnet, Jr.

At the tea which followed the Fashion Show alternating in presiding at the tea and coffee service were: Mmes. Monte F. Meyer, J. S. Hebert, Daniel N. Silverman, S. M. Blackshear, Wiley R. Buffington, Frederick L. Fenno, Adolph Jacobs, George Taquino, J. W. Warren, and C. Grenes Cole.

The tea girls were: Misses Judith Kelleher, Margaret Countiss, Linda Thomas, Ann Miller, Mary Carroll Guidry, Judith Miller, Lucille Vella, Kathleen Brown, Elsa Golden, Margaret Ohms, Joan Treadway, Susanne Hunt, Elizabeth Ann Bellone and Ann Schlosser.

The following were Chairmen: Mrs. Jules Myron Davidson of the Tea; Mrs. William W. Kohlmann and Mrs. Joseph A. Vella of Tea girls; Mrs. Martin O. Miller of the Fashion Show; Mrs. Esmond Fatter of flower arrangements for tea tables; Mrs. Edwin R. Guidry as Chairman of the State Convention of Woman's Auxiliary to the Louisiana State Medical Society performed a magnificant job.

Mrs. Branch J. Aymond,
Publicity Chairman.

BOOK REVIEWS

Polio Pioneers, The Story of the Fight Against Polio; by Dorothy and Philip Sterling; with photographs by Myron Ehrenberg and the National Foundation for Infantile Paralysis, Garden City, N. Y., Doubleday & Co., 1955. Illus. 129 p. Price $2.75.

This is a popular presentation of all the things that had to be discovered about disease and vaccination and viruses before the Salk vaccine could be achieved. The book is profusely illustrated and the explanations are clearly given in language understandable to the layman.

Dorothy Sterling is experienced in popular science writing since she was for some years on the staff of *Life* and has written a number of books for children. Her husband, Philip Sterling is with the Publicity Department of C.B.S. Radio.

The photographs are unusually fine and add much to the interest which the book offers.

MARY LOUISE MARSHALL

A Modern Pilgrim's Progress for Diabetics; by Garfield G. Duncan, M. D., Philadelphia, Pa., W. B. Saunders Co., 1956, Pp. 222, Price $2.50.

Most recent of the manuals for diabetic patients is this small volume by Dr. Duncan, Clinical Professor of Medicine and Director of the Medical Divisions of the Pennsylvania Hospital and the Benjamin Franklin Clinic. In diabetes, more than in many other diseases the patient shares responsibility in the conduct of treatment with the physician. In an interesting manner a composite picture of the diabetic life and of diabetes, is given in story form as the life of a

diabetic. An appendix gives much detailed information as to self-care and a glossary defines many medical terms, unfamiliar to lay persons.

MARY LOUISE MARSHALL

Campbell's Operative Orthopaedics; edited by J. S. Speed, M. D. and Robert A. Knight, M. D., 3rd Edition. St. Louis; The C. V. Mosby Company, 1956, 2 vols. 2124 pp. Price $40.00.

The Third Edition of this monumental work first published by Willis Campbell in 1939 is most welcome. The Second Edition revised under the authorship of Dr. Campbell's associates, J. Spencer Speed and Hugh Smith which appeared in 1949, firmly established this work as the authoritative compilation of operative procedures in orthopedic surgery. This latest revision now under the editorship of J. Spencer Speed and Robert Knight records the progress and changes that have occurred in orthopedic surgery during the past seven years. The editors have called for assistance on all members on the staff of the Campbell Clinic as well as on other outstanding authorities in the country in this most thorough revision.

The addition of the chapter on surgical physiology by James Hardy is timely and the extensive revision on the use of intramedullary fixation reflects the extensive work which has been carried out by this group in this particular field. Not only has the Third Edition increased some 510 pages but the inclusion of a number of new illustrations greatly enhances the value of many of the sections.

The revision has been so extensive and the material increased so greatly it seems impossible that this amount of change and progress could have occurred in such a brief period of time. It illustrates the expanding scope of orthopedics and also indicates the importance of this book to every surgeon who deals with lesions of the bones and joints.

JACK WICKSTROM, M. D.

Hypnotic Suggestion, Its Role in Psychoneurotic and Psychosomatic Disorders; by S. J. Van Pelt, New York: Philosophical Library, 1956, Pp. 87, Price $2.75.

The author is a British medical hypnotist, and the book was published at the peak of the Bridey Murphy publicity. Its eighty-seven small pages attempt to provide to the physician treating psychoneurotic and psychosomatic disorders not only historical statistics, actual mental mechanisms involved and technique, but also a course in the practical application of hypnosis. Such omniscience in a small volume is equaled only by the relative omnipotence Dr. Van Pelt ascribes to hypnosis in the treatment of psychoneurotic and psychosomatic disorders.

The twelve case histories are dramatically presented. Dr. Van Pelt's basic assumption is that, because by suggestion one can produce in a hypnotized individual similar symptoms to those that appear in a psychneurotic, one can conclude that the psychoneuroses are the result of accidental self-hypnosis and suggestion. He places great emphasis on the eliciting during hypnosis of the thought that first frightened the patient. Then in a few sessions the hypnotherapist is supposed to give constructive suggestions regarding the frightening thought.

The book does have some merit, but this merit lies primarily in its being read by the physician who is broadly acquainted with literature in the field. The danger of the volume lies in encouraging injudicious use of hypnosis which can be not only ineffective but actually harmful to the emotionally ill individual.

GENE L. USDIN, M. D.

PUBLICATIONS RECEIVED

Grune & Stratton, N. Y.: Experimental Psychopathology, edited by Paul H. Hoch, M. D., and Joseph Zubin, Ph.D; Synopsis of Gastroenterology, by Rudolph Schindler, M. D.; Blood and Bone Marrow Patterns, by G. D. Talbott, M. D.

Harvard University Press, Cambridge: Medical Services for Rural Areas, by William A. Massie.

Paul B. Hoeber, Inc., N. Y.: Clinical Electrocardiography, Interpretation on a Physiologic Basis, by Manuel Gardberg, M. D., with chapters by Richard Ashman, Ph.D., Irving L. Rosen, M. D., and Louis Levy, II, M. D.

The Interstate Publishing Co., Danville, Ill.: The Riddle of Stuttering, by C. S. Bluemel, M. D.

Office of the Surgeon General, Department of the Army, Washington: Orthopedic Surgery in the European Theater of Operations, edited by Colonel John Boyd Coates, Jr., Mather Cleveland, M. D., and Elizabeth M. McFetridge, M. A.; General Surgery, Volume II, edited by Colonel John Boyd Coates, Jr., Michael E. DeBakey, M. D., W. Philip Giddings, M. D., and Elizabeth M. McFetridge, M. A.

W. B. Saunders Co., Phila.: Principles of Urology, by Meredith F. Campbell, M. D.

Charles C Thomas, Publisher, Springfield, Ill.: Manual of Radiation Therapy, by K. Wilhelm Stenstrom, Ph.D., revised with additions and discussions by Paul C. Olfelt, M. D., and Frances Conklin, M. D.